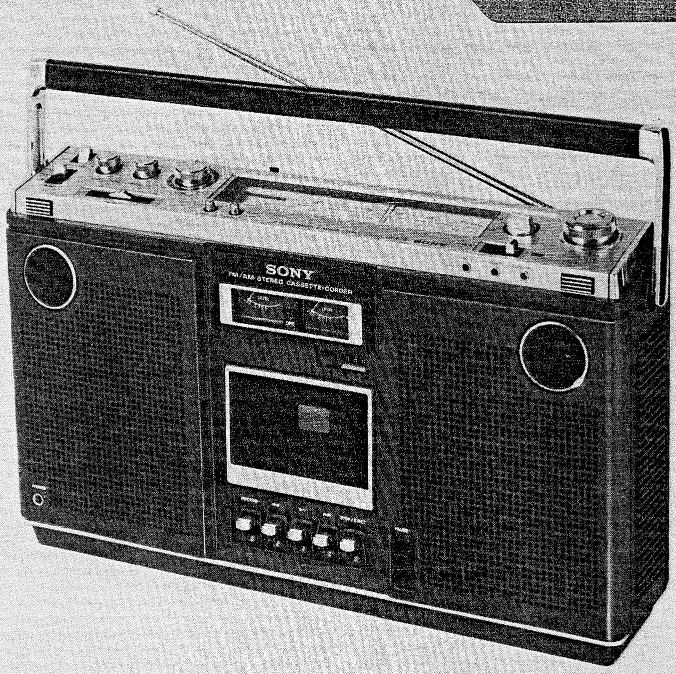
115

CF-570L

AEP Model
UK Model



FM/AM STEREO CASSETTE-CORDER

SPECIFICATIONS

GENERAL

Power Requirements:	240V ac, 50Hz (UK model) 110, 120, 220 or 240V ac, 50/60Hz (AEP model) 12V dc, Battery size-D, 8 pcs (IEC designation R20) Car battery cord DCC-9 for 12V car battery
Power Consumption:	14W ac (UK model) 13W ac (AEP model)
Power Output: (at dc operation)	2Wx2 (at 10% harmonic distortion)
Speakers:	Two-way Two approx. 16cm (6½ inches) dia. woofer, 4Ω Two approx. 5cm (2 inches) dia. tweeter, 4Ω
Dimensions:	Approx. 475(w)x298(h)x128(d)mm Approx. 18¾(w)x11¾(h)x5⅛(d) inches including projecting parts and controls, not including handle
Weight:	Approx. 7 kg, 15 lb 7 oz with batteries

RADIO SECTION

Antennas:	FM/SW: Telescopic antenna MW/LW: Built-in ferrite-rod antenna
Frequency Range:	FM: 87.5–108MHz (3.43–2.78m) SW: 6–18MHz (50–16.7m) MW: 530–1,605kHz (566–187m) LW: 150–350kHz (2,000–857m)

TAPE RECORDER SECTION

Track:	4-track 2-channel stereo or monaural
Fast Forward Rewind Time:	Approx. 2 min. with Sony Cassette C-60
Frequency Responce:	50–10,000Hz with standard cassette, with the TAPE SELECT switch set to NORMAL 50–13,000Hz with Chromium dioxide cassette, with the TAPE SELECT switch set to CrO_2
Wow and Flutter:	0.19% (WRMS)
S/N Ratio:	45dB

– Continued on page 2 –

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SONY®

SERVICE MANUAL

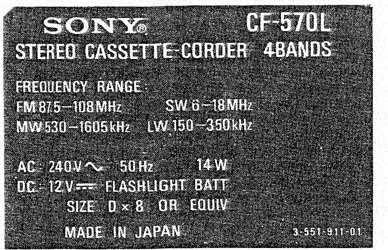
Total Harmonic Distortion:	2.5%
Battery Life:	In continuous recording with built-in microphone: Approx. 8 hours with Sony long-life batteries size D
Inputs:	MIC (two mini jacks) Sensitivity: 0.2mV (−72dB) Impedance: for low-impedance microphone
Output:	HEADPHONE (binaural jack) Load impedance: 8Ω
Other Jacks:	Record/playback jack (5-pin DIN jack) Remote control jack

0 dB = 0.775 V

MODEL IDENTIFICATION

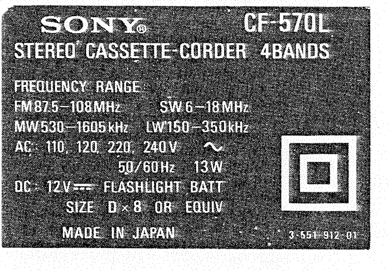
– Specification Label –

UK Model



SONY® CF-570L
STEREO CASSETTE-CORDER 4BANDS
FREQUENCY RANGE:
FM 87.5–108MHz SW 6–18MHz
MW 530–1605kHz LW 150–350kHz
AC: 240V ∼ 50Hz 14W
DC: 12V ⎓ FLASHLIGHT BATT
SIZE D × 8 OR EQUIV
MADE IN JAPAN 3-551-911-01

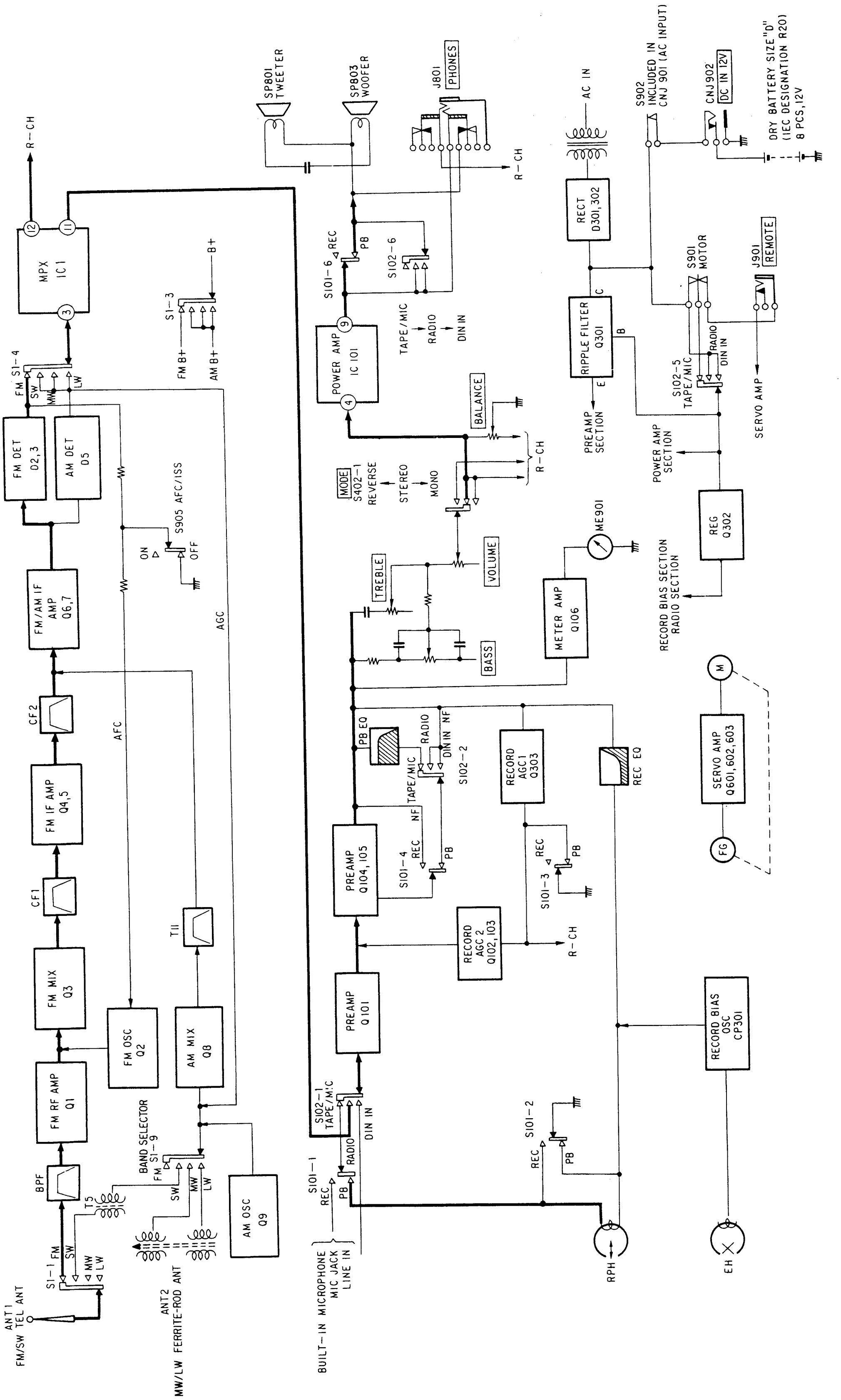
AEP Model



SONY® CF-570L
STEREO CASSETTE-CORDER 4BANDS
FREQUENCY RANGE:
FM 87.5–108MHz SW 6–18MHz
MW 530–1605kHz LW 150–350kHz
AC: 110, 120, 220, 240V ∼
50/60Hz 13W
DC: 12V ⎓ FLASHLIGHT BATT
SIZE D × 8 OR EQUIV
MADE IN JAPAN 3-551-912-01

SECTION 1
OUTLINE

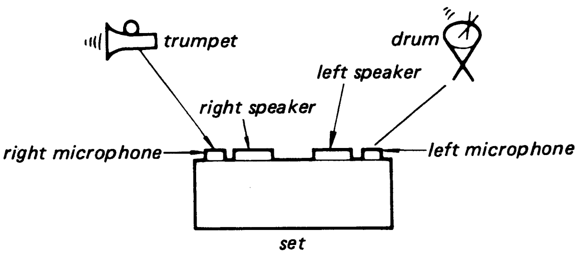
1-1. BLOCK DIAGRAM


ANT1
FM/SW TEL ANT
S1-1
FM
SW
MW
LW
BPF
T5
FM RF AMP
Q1
FM MIX
Q3
CF1
FM IF AMP
Q4,5
CF2
FM/AM IF AMP
Q6,7
FM DET
D2,3
AM DET
D5
S1-4
MPX
IC1
R-CH
FM OSC
Q2
AM MIX
Q8
T11
AFC
AGC
S905 AFC/ISS
ON
OFF
S1-3
FM B+
AM B+
B+
ANT2
MW/LW FERRITE-ROD ANT
BAND SELECTOR
S1-9
AM OSC
Q9
BUILT-IN MICROPHONE
MIC JACK
LINE IN
S101-1
REC
PB
S102-1
TAPE/MIC
RADIO
DIN IN
PREAMP
Q101
RECORD
AGC 2
Q102,103
PREAMP
Q104,105
S101-4
NF
PB EQ
S102-2
RECORD
AGC1
Q303
S101-3
TREBLE
BASS
VOLUME
MODE
S402-1
REVERSE
STEREO
MONO
BALANCE
POWER AMP
IC101
S101-6
S102-6
SP801
TWEETER
SP803
WOOFER
J801
PHONES
METER AMP
Q106
ME901
REC EQ
S101-2
RPH
RECORD BIAS
OSC
CP301
EH
SERVO AMP
Q601,602,603
M
FG
RECORD BIAS SECTION
RADIO SECTION
REG
Q302
POWER AMP
SECTION
PREAMP
SECTION
RIPPLE FILTER
Q301
C
B
E
RECT
D301,302
AC IN
S902
INCLUDED IN
CNJ 901 (AC INPUT)
CNJ902
DC IN 12V
DRY BATTERY SIZE "D"
(IEC DESIGNATION R20)
8 PCS,12V
S901
MOTOR
J901
REMOTE
S102-5
SERVO AMP

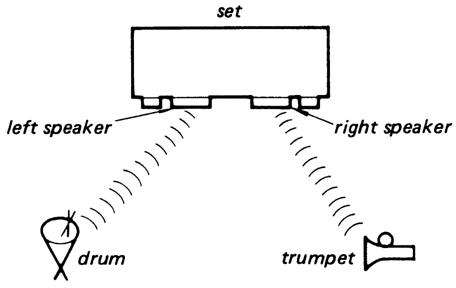
1-2. REVERSE POSITION OF MODE SWITCH

The MODE switch of CF-570L has the MONO, STEREO and REVERSE positions. The left and right sounds are reversely heard in the REVERSE position. And this set has two microphones at the both sides of front case. The sound which is recorded from the left microphone is played back from the left speaker, and the sound from the right microphone is played back from the right speaker.
Thus, when a recording is made with the recorder facing the sound sources as shown right, the playback sound of the left source is heard from the right speaker and the sound of right source is heard from the left speaker. So the playback sound is reversely heard. But setting the MODE switch to REVERSE position, the playback sound from the left and right speakers will be reversed and duplicate the original position correctly.

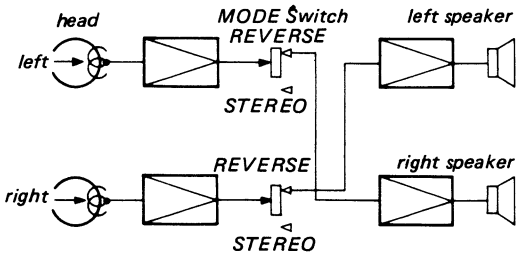
Stereo recording


trumpet
drum
left speaker
right speaker
right microphone
left microphone
set

Stereo playback (MODE switch: STEREO position)


set
left speaker
right speaker
drum
trumpet

Playback in REVERSE position


head
left
right
MODE Switch
REVERSE
STEREO
REVERSE
STEREO
left speaker
right speaker

SECTION 2
DISASSEMBLY

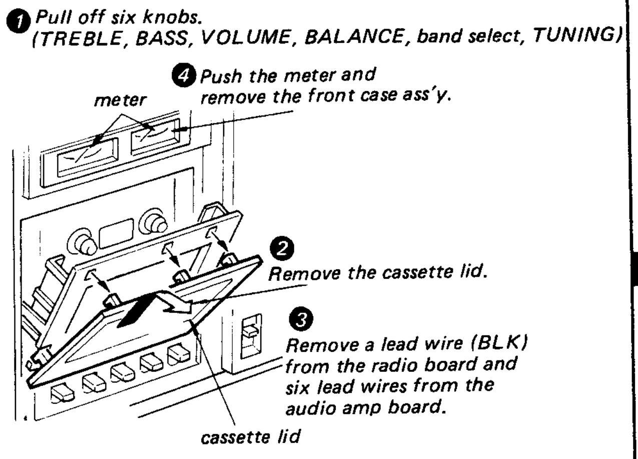
2-1. REMOVAL

Remove the parts in the numerical order.

Rear Case Removal

- Remove eight screws on the rear case.

Front Case Ass'y Removal



➊ *Pull off six knobs. (TREBLE, BASS, VOLUME, BALANCE, band select, TUNING)*

➋ *Remove the cassette lid.*

➌ *Remove a lead wire (BLK) from the radio board and six lead wires from the audio amp board.*

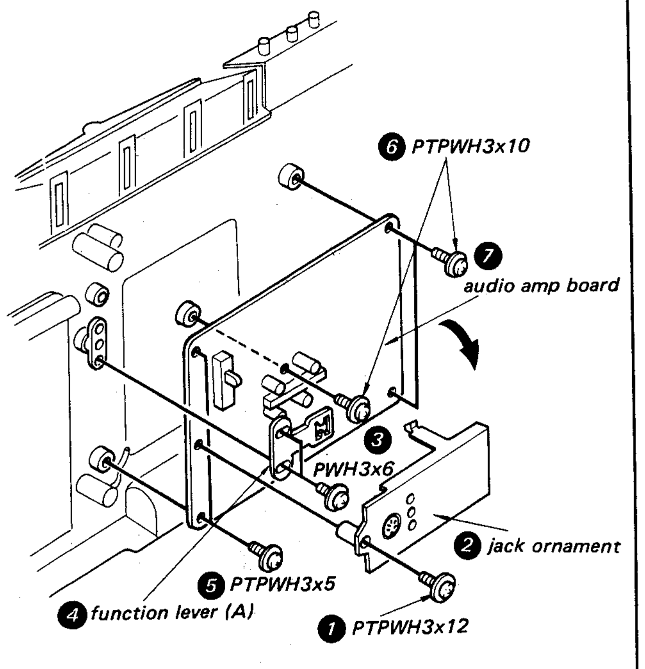
➍ *Push the meter and remove the front case ass'y.*

meter
cassette lid

Dial Cord Stringing

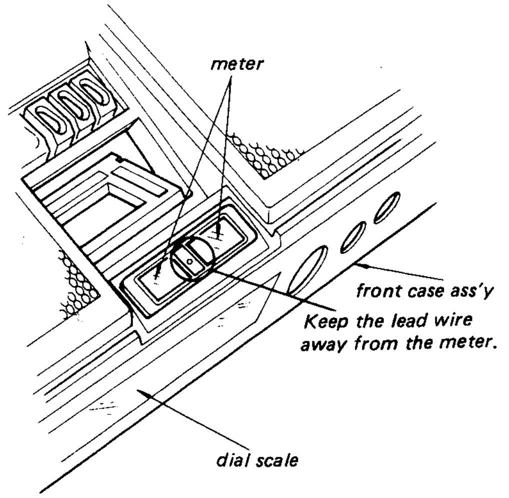
See page 7.

Audio Amp Board Removal



➊ PTPWH3x12
➋ jack ornament
➌ PWH3x6
➍ function lever (A)
➎ PTPWH3x5
➏ PTPWH3x10
➐ audio amp board

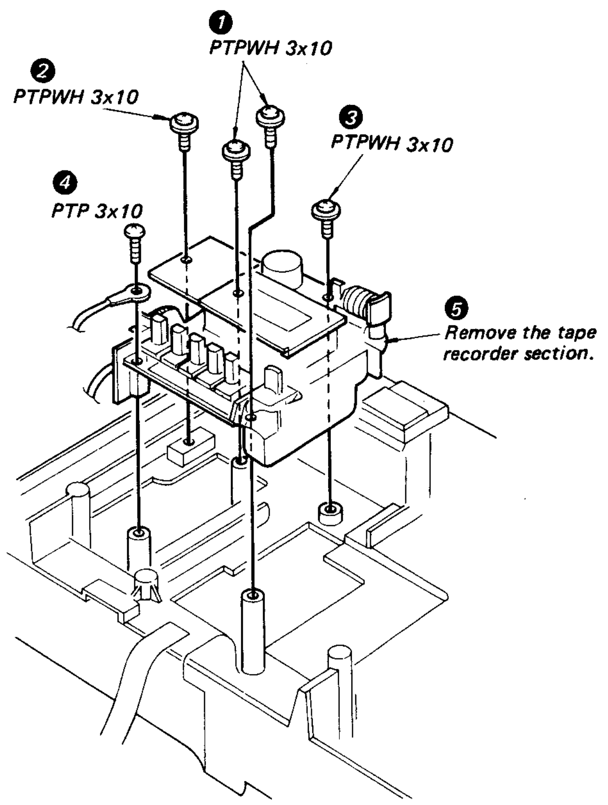
Notice of Front Case Ass'y Installation



Keep the lead wire away from the meter.

meter
front case ass'y
dial scale

Tape Recorder Section Removal

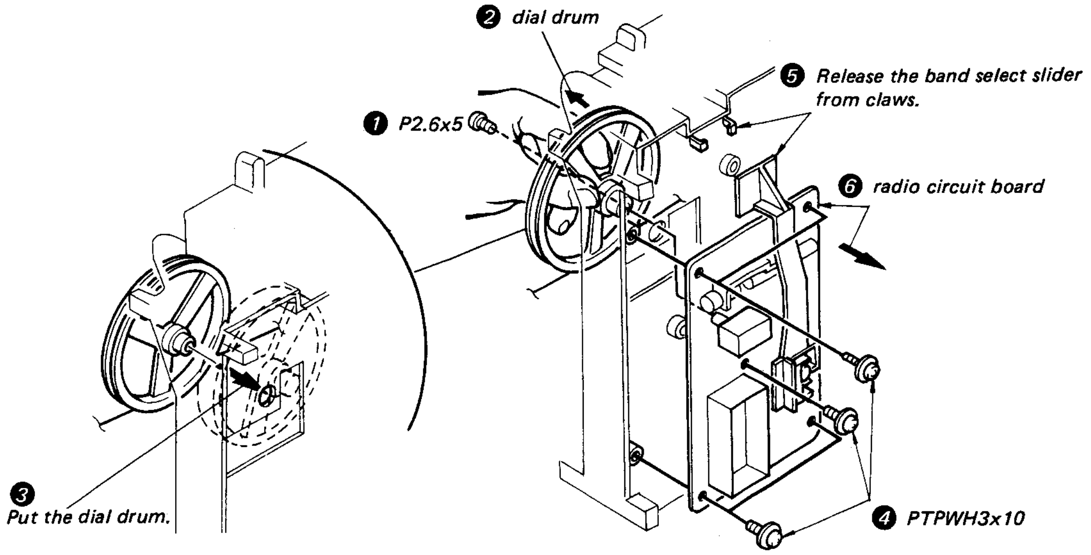


➎ *Remove the tape recorder section.*

➊ PTPWH 3x10
➋ PTPWH 3x10
➌ PTPWH 3x10
➍ PTP 3x10

Motor, flywheel and rubber belt can be removed.

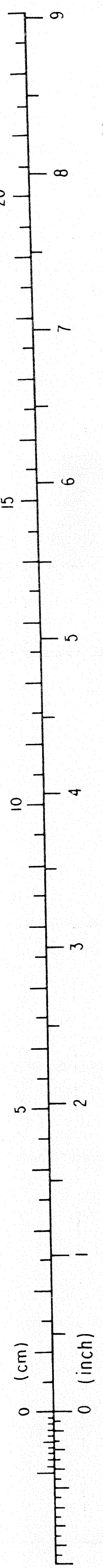
Radio Board Removal



➌ *Put the dial drum.*

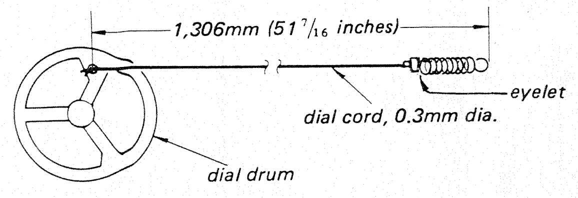
➎ *Release the band select slider from claws.*

➊ P2.6x5
➋ dial drum
➍ PTPWH3x10
➏ radio circuit board

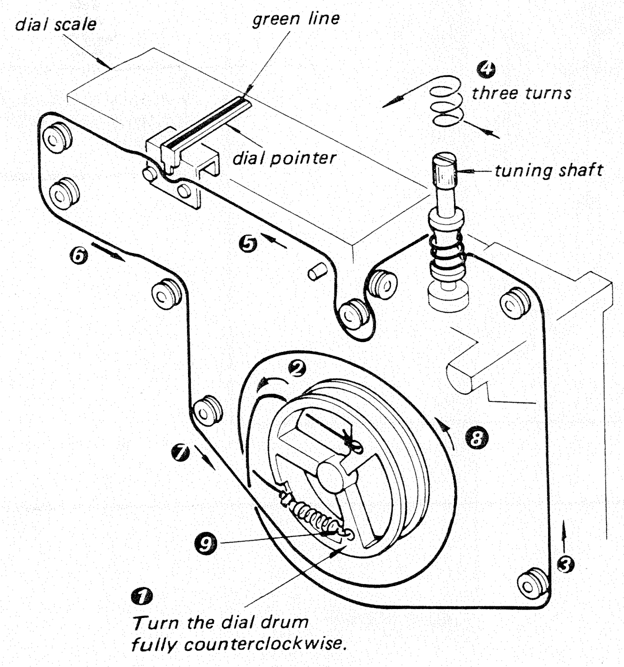

20
15
10
5
0
(cm)
9
8
7
6
5
4
3
2
1
0
(inch)

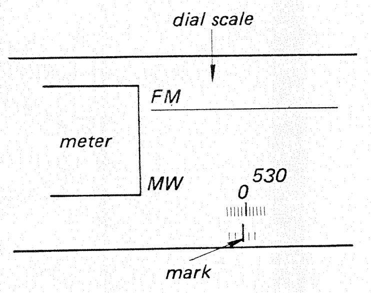
2-2. DIAL CORD STRINGING

1) Preparation


1,306mm (51 7/16 inches)
eyelet
dial cord, 0.3mm dia.
dial drum

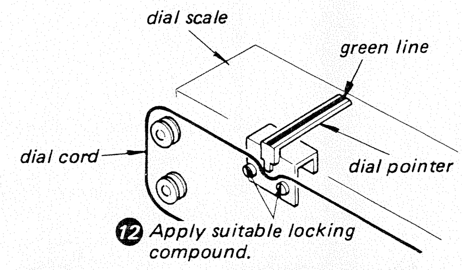
2) Stringing


dial scale
green line
4
three turns
dial pointer
tuning shaft
5
6
2
8
7
9
3
1
Turn the dial drum fully counterclockwise.


dial scale
FM
meter
MW
530
0
mark

⑩ Turn the tuning shaft fully counterclockwise.

⑪ Set the green line of dial pointer at the mark on the dial scale.


dial scale
green line
dial cord
dial pointer
12
Apply suitable locking compound.

SECTION 3
ADJUSTMENTS

3-1. TAPE CORDER SECTION MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab:

record/playback head	pinch roller
erase head	rubber belts
capstan	idlers

2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply a suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Forward:

Torque meter	Meter reading
CQ-101A CQ-102A CQ-103A	22.5–55 g·cm (0.32–0.76 oz·inch)

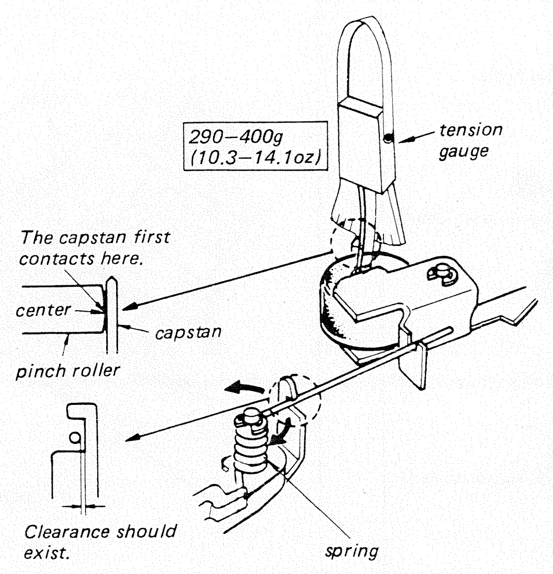
Fast Forward, Rewind:

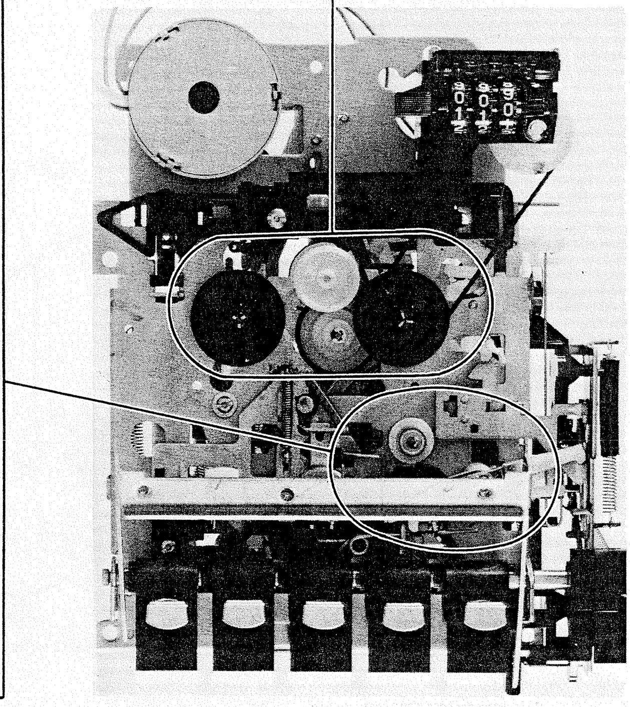
Torque meter	Meter reading
CQ-201A	55–100 g·cm (0.76–1.39 oz·inch)

Pinch Roller Pressure Adjustment

– playback mode –

1. Push the tension gauge.
2. Slowly return the pinch roller and read the tension gauge just when the pinch roller starts to rotate.
3. If necessary, bend or replace the spring.

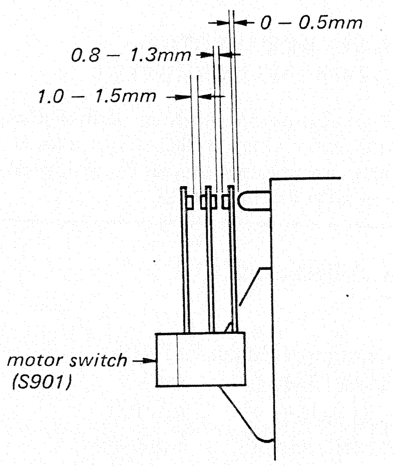

290–400g
(10.3–14.1oz)
tension gauge
The capstan first contacts here.
center
capstan
pinch roller
Clearance should exist.
spring

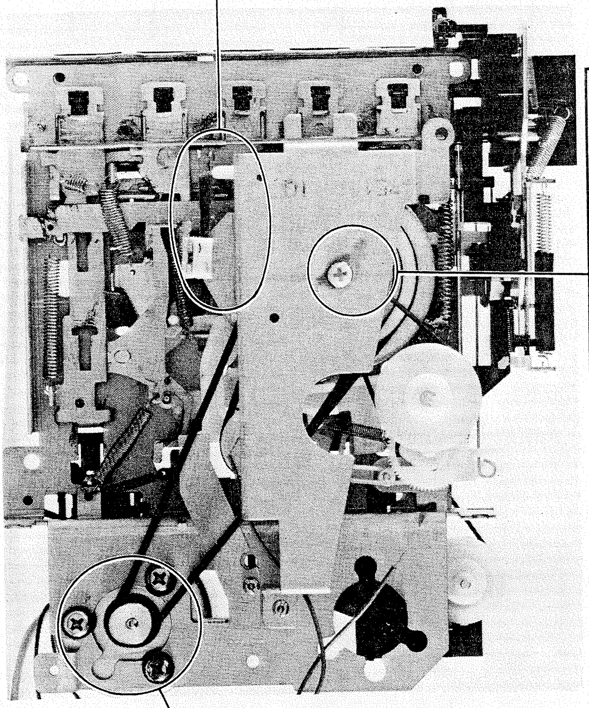


Motor Switch (S901) Position Adjustment

– stop mode –

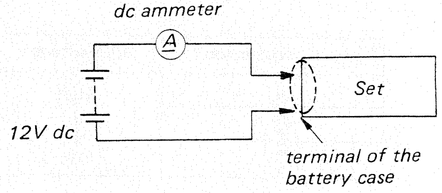
1. Bend the switch leaf so that the specified clearance is obtained between the switch lever and switch leaf.
2. After the adjustment, confirm that the motor switch turns ON in playback, fast forward and rewind modes.


0 – 0.5mm
0.8 – 1.3mm
1.0 – 1.5mm
motor switch
(S901)



Flywheel Thrust Play Adjustment

Procedure:


dc ammeter
A
12V dc
Set
terminal of the
battery case

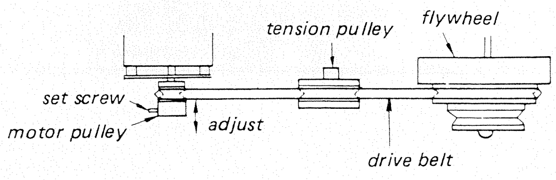
1. Place the set horizontally and reel-spindle-side-down.
2. Loosen the screw by turning it counterclockwise.
3. Carefully tighten the screw until current suddenly increases.
   Then, loosen the screw ¼ turn.

Motor Pulley Height Adjustment

After replacing the motor pulley or the flywheel, this adjustment should be performed.

Procedure:

1. Keep the set horizontal.
2. Adjust the motor pulley height so that the drive belt is straight without twist.


tension pulley
flywheel
set screw
motor pulley
adjust
drive belt

3-2. TAPE RECORDER SECTION ELECTRICAL ADJUSTMENTS

Note: The adjustments should be performed in the order given in this service manual. The adjustments should be performed for both L-CH and R-CH.

B+ Voltage Adjustment

Setting:

Power supply voltage: 12V dc
band select switch: FM
function switch: RADIO
VOLUME control: minimum

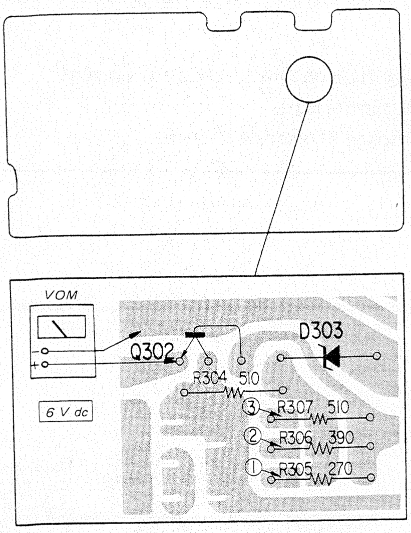
Procedure:

Adjust the pattern connection for 6V VOM reading.

Adjustment Location and Specification:

Pattern connection	B+Voltage
①	high ↕ low
②	
③	

– audio amp board –
(Conductor Side)


VOM
6 V dc
Q302
D303
R304 510
③ R307 510
② R306 390
① R305 270

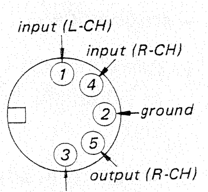
Tape Speed Adjustment

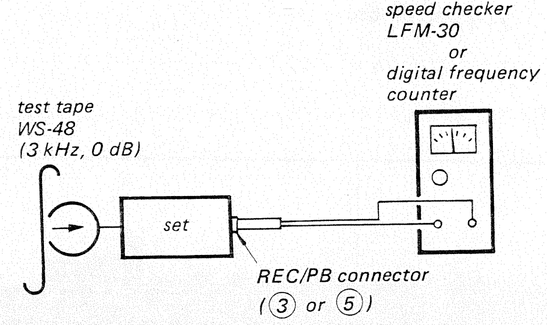
Setting:

function switch: TAPE/MIC

Procedure:

Mode: playback


REC/PB connector
(outside view)
input (L-CH)
input (R-CH)
ground
output (R-CH)
output (L-CH)
1
4
2
5
3


speed checker
LFM-30
or
digital frequency
counter
test tape
WS-48
(3 kHz, 0 dB)
set
REC/PB connector
(③ or ⑤)

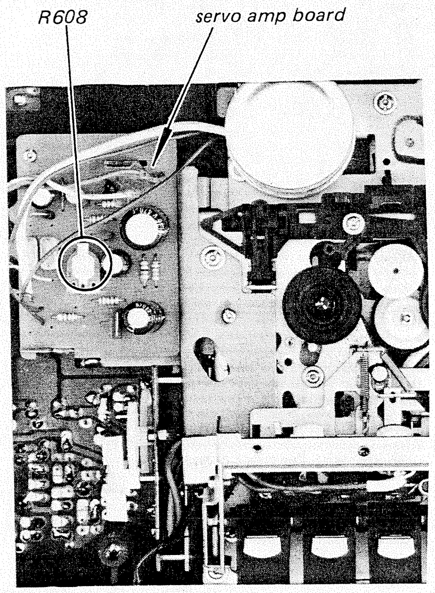
Adjust R608 to obtain the specified values below.

Specification:

Speed checker	Digital frequency counter
−2.5 – +3%	2,925–3,090 Hz

Frequency difference between beginning and end of tape should be within 1% (30 Hz).

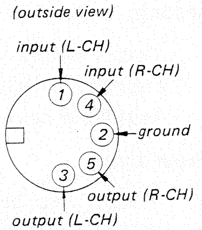
Adjustment Location:


R608
servo amp board

Record/playback Head Azimuth Adjustment

Setting:

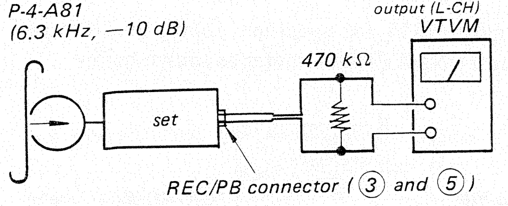
function switch: TAPE/MIC
MODE switch: STEREO


REC/PB connector
(outside view)
input (L-CH)
input (R-CH)
1
4
2
ground
5
3
output (R-CH)
output (L-CH)

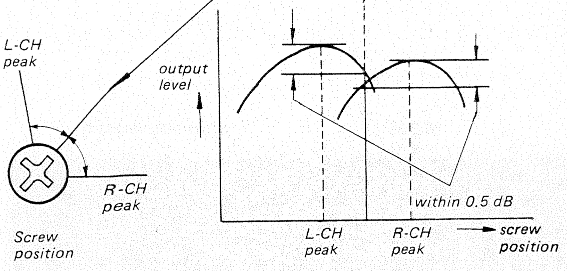
Procedure:

1. Mode: playback

test tape
P-4-A81
(6.3 kHz, −10 dB)

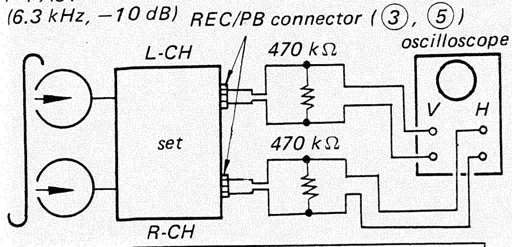

VTVM
470 kΩ
set
REC/PB connector (③ and ⑤)

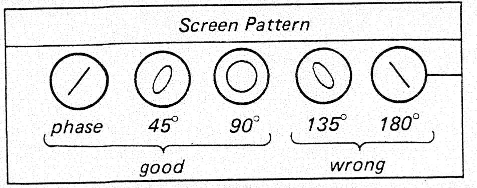
2. Turn the adjustment screw for the maximum level and set it to the mechanical mid position between L-CH and R-CH peak positions.


L-CH
peak
output
level
R-CH
peak
Screw
position
within 0.5 dB
L-CH
peak
R-CH
peak
screw
position

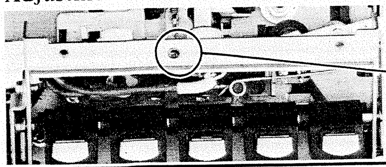
3. Mode: playback

test tape
P-4-A81
(6.3 kHz, −10 dB)


REC/PB connector (③, ⑤)
oscilloscope
L-CH
470 kΩ
V
H
set
470 kΩ
R-CH


Screen Pattern
phase
45°
90°
135°
180°
good
wrong

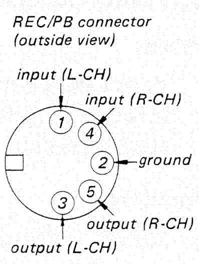
Adjustment Location:


adjustment screw

Playback Level Adjustment

Setting:

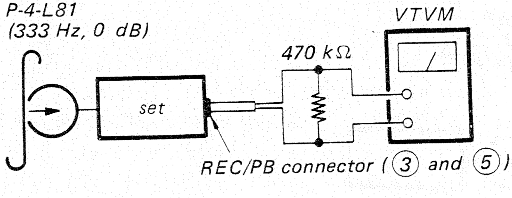
function switch: TAPE/MIC
MODE switch: STEREO


REC/PB connector
(outside view)
input (L-CH)
input (R-CH)
1
4
2
ground
5
3
output (R-CH)
output (L-CH)

Procedure:

1. Mode: playback

test tape
P-4-L81
(333 Hz, 0 dB)


VTVM
470 kΩ
set
REC/PB connector (③ and ⑤)

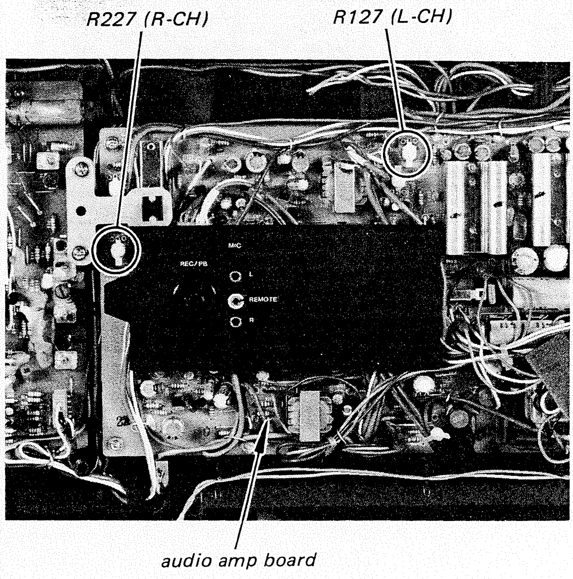
Adjust R127 (L-CH) and R227 (R-CH) to obtain 0.55V (−3dB) VTVM reading.

2. Assure that the OUTPUT level does not change when the mode is changed from playback to stop several times.

Specification:

LINE OUT level: 0.44–0.69V
(-1 – -5dB)
Level difference between channels:
less than 1.0dB

Adjustment Location:


R227 (R-CH)
R127 (L-CH)
MIC
REC/PB
L
REMOTE
R
audio amp board

Level Meter Calibration

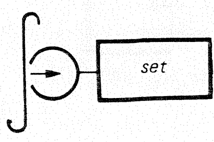
Setting:

Power supply voltage:	12V dc
function switch:	TAPE/MIC
MODE switch:	STEREO

Procedure:

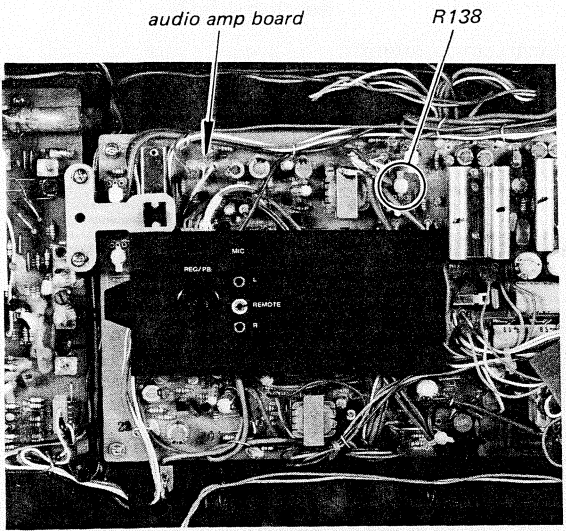
1. Mode: playback

test tape
P-4-L81
(333Hz, 0dB)



Adjust R138 so that level meter indication of L-CH becomes the same as R-CH.

Adjustment Location:


audio amp board
R138

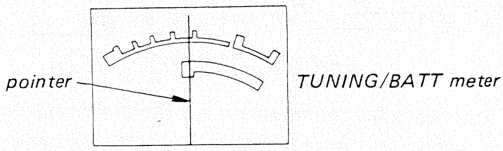
Battery Meter Calibration

Setting:

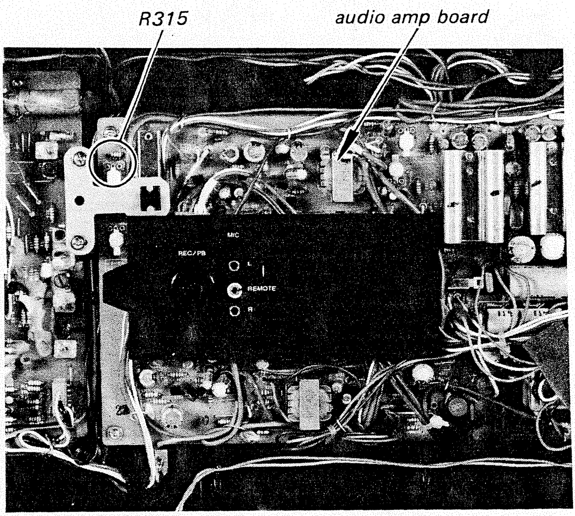
Power supply voltage:	8.8V dc
function switch:	TAPE/MIC
VOLUME control:	minimum

Procedure:

1. Mode: playback with no cassette loaded
2. Adjust R315 for specified pointer position on the TUNING/BATT meter as shown below.


pointer
TUNING/BATT meter

Adjustment Location:


R315
audio amp board

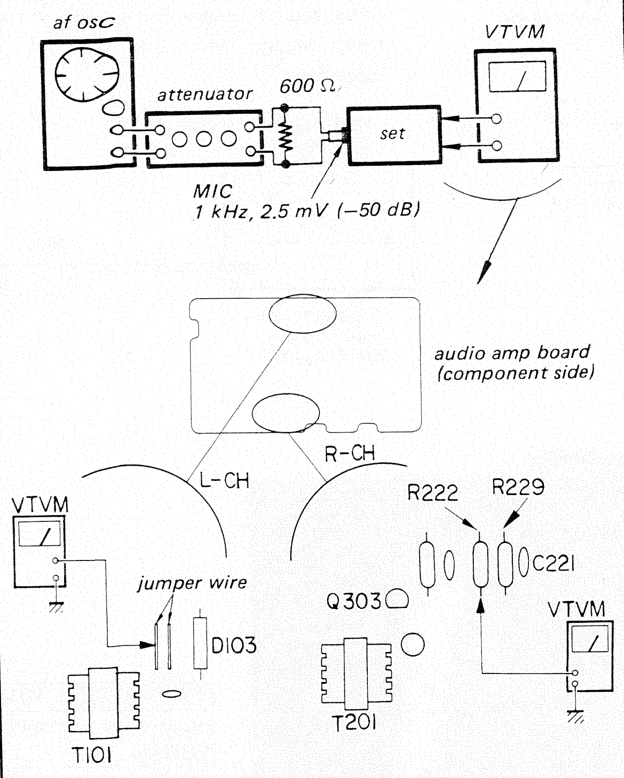
AGC Balance Adjustment

Setting:

function switch: TAPE/MIC
MODE switch: STEREO

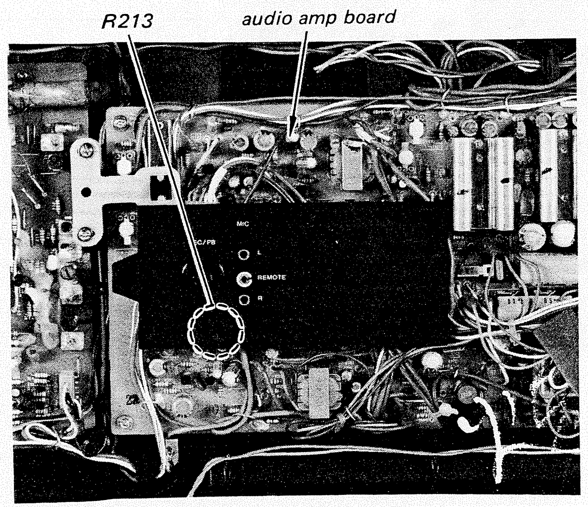
Procedure:

1. Mode: record

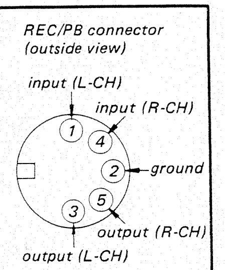

af osc
attenuator
600 Ω
set
VTVM
MIC
1 kHz, 2.5 mV (–50 dB)
audio amp board
(component side)
L-CH
R-CH
VTVM
jumper wire
D103
T101
Q303
T201
R222
R229
C221
VTVM

2. Adjust R213 so that the VTVM reading of R-CH becomes the same as L-CH.

Adjustment Location:


R213
audio amp board

Record Bias Adjustment

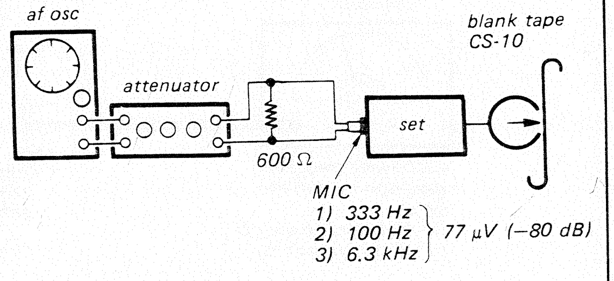

REC/PB connector
(outside view)
input (L-CH)
input (R-CH)
ground
output (R-CH)
output (L-CH)
1
2
3
4
5

Setting:

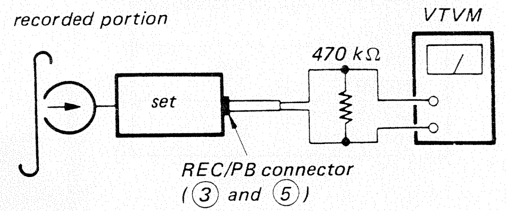
function switch: TAPE/MIC
TAPE SELECT switch: NORMAL

Procedure:

1. Mode: record


af osc
attenuator
600 Ω
set
blank tape
CS-10
MIC
1) 333 Hz
2) 100 Hz
3) 6.3 kHz
77 μV (–80 dB)

2. Mode: playback

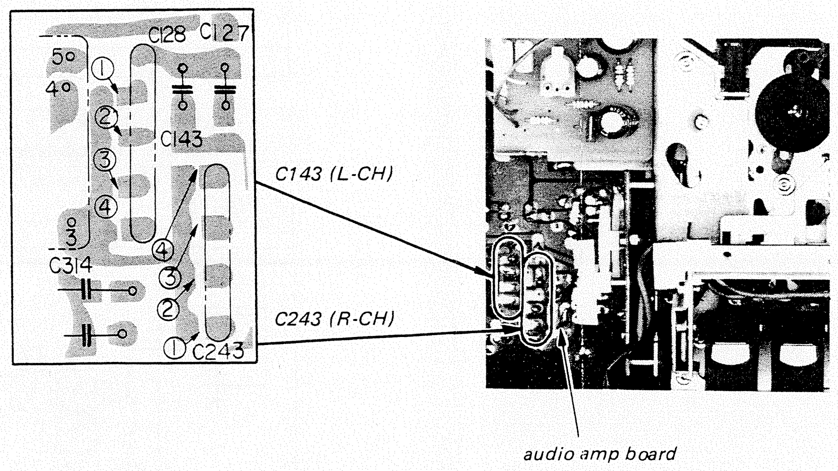

recorded portion
set
470 kΩ
VTVM
REC/PB connector
(③ and ⑤)

Specification:

100 Hz and 6.3 kHz level difference from 333 Hz: 0 dB ± 1.5 dB

Adjustment Location:

Pattern connection	6.3 kHz VTVM reading
①	down
②	↑
③	↓
④	up


C128
C127
5
4
3
①
②
③
④
C143
C314
④
③
②
①
C243
C143 (L-CH)
C243 (R-CH)
audio amp board

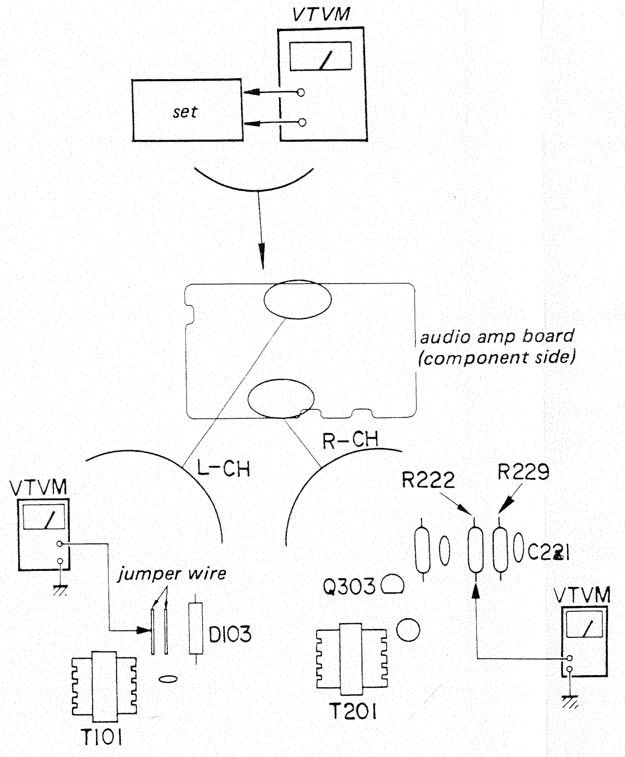
Bias Trap Adjustment

Setting:

function switch: DIN IN
AFC/ISS switch: OFF

Procedure:

1. Mode: record (no signal input)

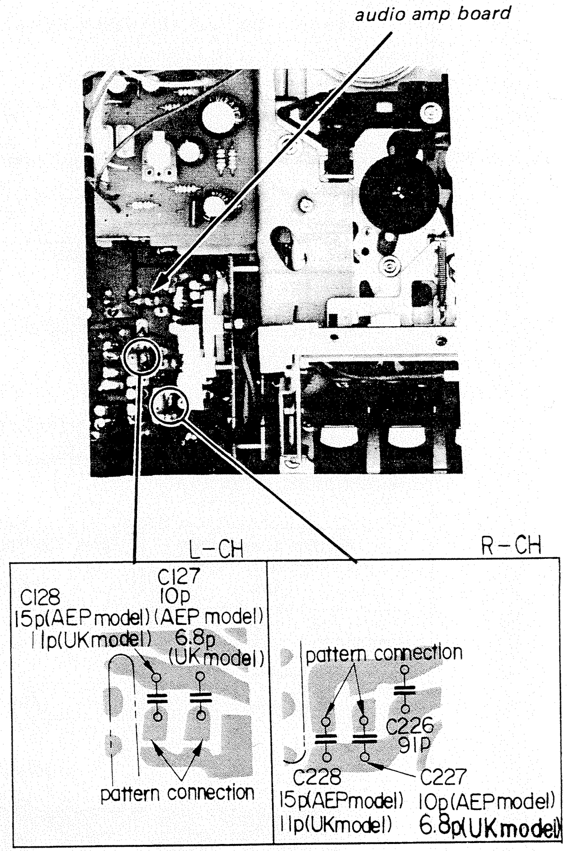

VTVM
set
audio amp board
(component side)
L-CH
R-CH
VTVM
jumper wire
D103
T101
Q303
T201
R222
R229
C221
VTVM

2. Adjust pattern connection for the specified reading on VTVM.

Specification:

less than 25 mV (–30 dB)

Adjustment Location:


audio amp board
L-CH
R-CH
C128
15p(AEP model)
11p(UK model)
C127
10p
(AEP model)
6.8p
(UK model)
pattern connection
pattern connection
C226
91p
C228
15p(AEP model)
11p(UK model)
C227
10p(AEP model)
6.8p(UK model)

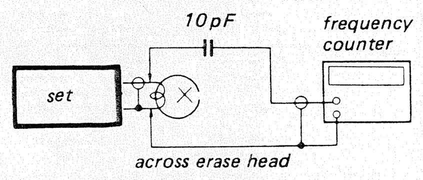
Bias Osc Frequency Adjustment

Setting:

function switch: DIN IN
AFC/ISS switch: OFF

Procedure:

Mode: record (no signal input)


10pF
frequency counter
set
across erase head

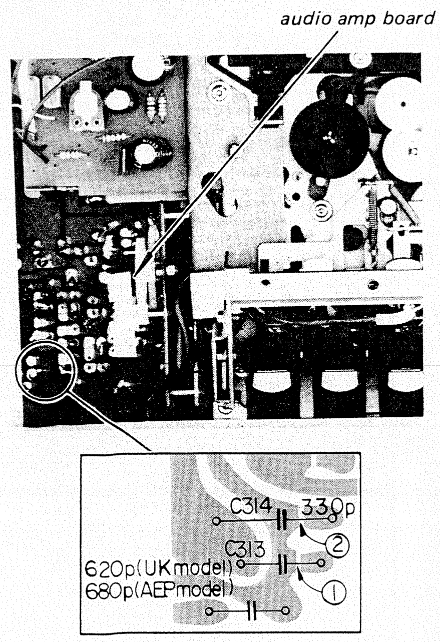
Adjust the pattern connection for the specified reading on frequency counter.

Specification:

frequency counter: 89–91kHz (UK model)
87–89kHz (AEP model)

Adjustment Location:

Pattern connection	Bias Osc frequency
Open	high
①	
②	
① and ②	low

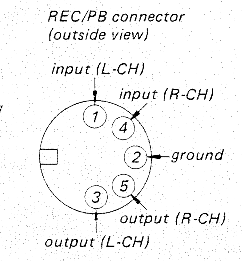

audio amp board
C314
330p
C313
620p(UKmodel)
680p(AEPmodel)
②
①

3-3. RADIO SECTION

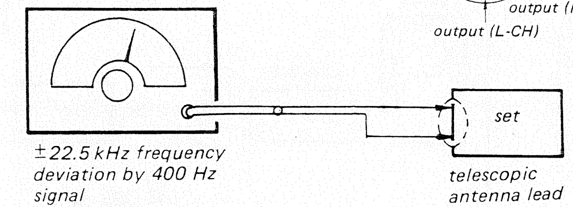
1) FM and SW Adjustments

Setting:

function switch: RADIO
band select switch: FM or SW


REC/PB connector (outside view)
input (L-CH)
input (R-CH)
ground
output (R-CH)
output (L-CH)
1
4
2
5
3

FM rf signal generator



±22.5 kHz frequency deviation by 400 Hz signal
(modulation turned off for IF Alignment 2.)

telescopic antenna lead

FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VOM ①.	
108.5MHz (108MHz)	CT1
87.1MHz (87.5MHz)	L2

( ): in West Germany

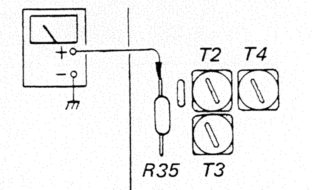
FM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VOM ①.	
108.5MHz (108MHz)	CT2
87.1MHz (87.5MHz)	L3

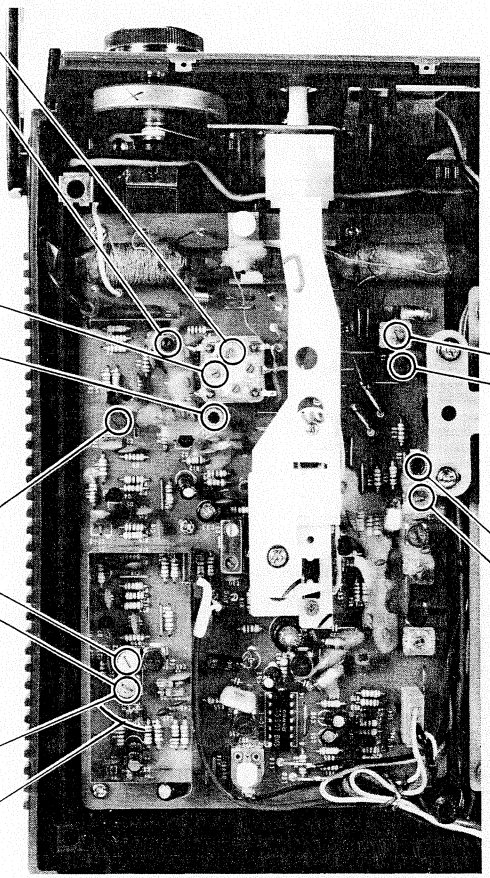
( ): in West Germany

FM IF ALIGNMENT 1 (10.7MHz with modulation)
Adjust for a maximum reading on VOM ①.
T1
T2
T3

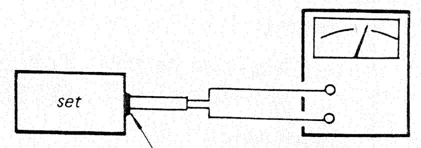
FM IF ALIGNMENT 2 (10.7MHz with no modulation)
Adjust for 0V reading on VOM ②.
T3

VOM ② (range: 1 V dc)





VOM ① (range: 0.5 – 5 V ac)

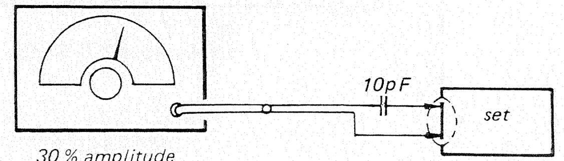


REC/PB connector (③ or ⑤)

Note:

- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

AM rf signal generator



30 % amplitude modulation by 400 Hz signal

telescopic antenna lead

SW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VOM ①.	
CT5	18.4MHz
T5	5.8MHz

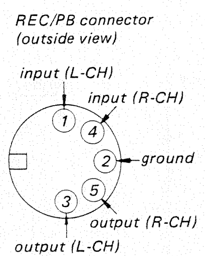
SW FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VOM ①.	
T6	5.8MHz
CT7	18.4MHz

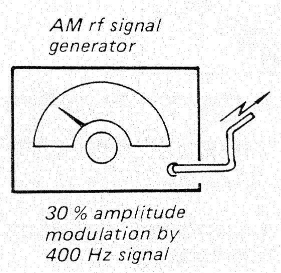
2) MW, LW and AM IF Adjustment

setting:

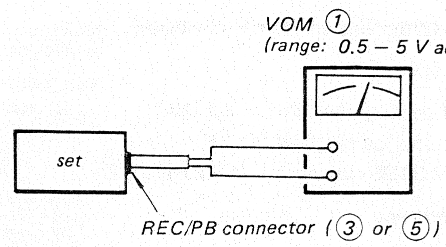
function switch: RADIO

band select switch: MW or LW


REC/PB connector
(outside view)
input (L-CH)
input (R-CH)
1
4
2
ground
5
3
output (R-CH)
output (L-CH)

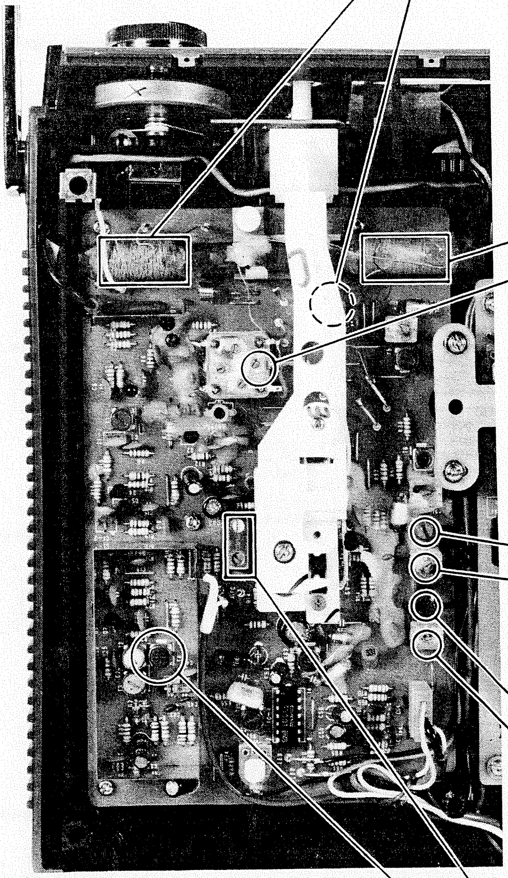

AM rf signal generator
30 % amplitude modulation by 400 Hz signal

Put the lead-wire antenna close to the set.


VOM ①
(range: 0.5 – 5 V ac)
set
REC/PB connector (③ or ⑤)

Note:

- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.



LW TRACKING ADJUSTMENT

Adjust for a maximum readking on VOM ①.

ANT2	160kHz
CT6	330kHz

MW TRACKING ADJUSTMENT

Adjust for a maximum reading on VOM ①.

ANT2	620kHz
CT3	1,400kHz

MW FREQUENCY COVERAGE ADJUSTMENT

Adjust for a maximum reading on VOM ①.

T7	515kHz
CT8	1,680kHz

LW FREQUENCY COVERAGE ADJUSTMENT

Adjust for a maximum reading on VOM ①.

T8	145kHz
CT9	350kHz

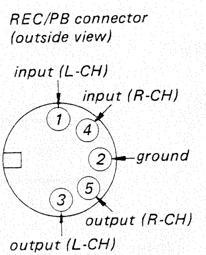
AM IF ALIGNMENT

Adjust for a maximum reading on VOM ①.

T11	455kHz (468kHz)
T4	

( ): UK Model

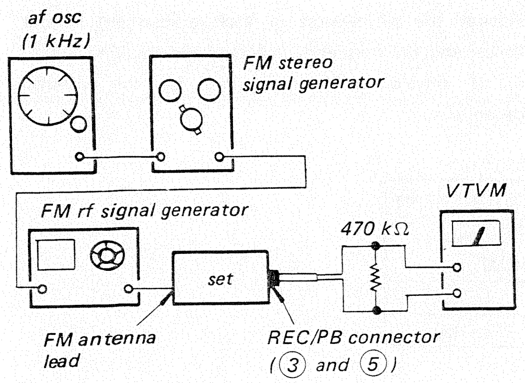
FM Stereo Separation Adjustment


REC/PB connector
(outside view)
input (L-CH)
input (R-CH)
ground
output (R-CH)
output (L-CH)
1
2
3
4
5

Setting:

function switch: RADIO
band select switch: FM
MODE switch: STEREO

Procedure:


af osc
(1 kHz)
FM stereo
signal generator
FM rf signal generator
VTVM
470 kΩ
set
FM antenna
lead
REC/PB connector
(③ and ⑤)

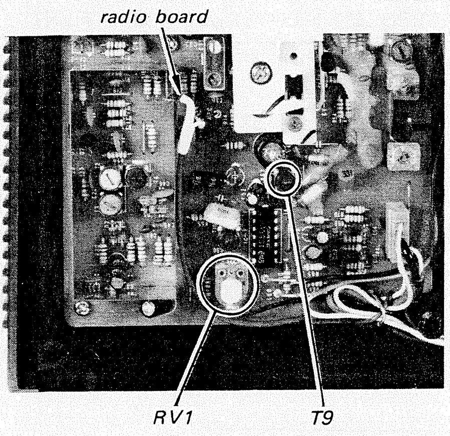
Carrier frequency: 98 MHz
Modulation frequency: 1 kHz
Output level: 1,000μV (60dB)

1. With L-CH (or R-CH) input signal, adjust T9 for maximum output level at L-CH (or R-CH).
2. With L-CH input signal, adjust RV1 for minimum output level at R-CH.

Specification:

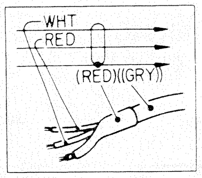
Level difference between step 1 and 2 should be more than 28 dB. If not, repeat the above steps.

Adjustment Location:


radio board
RV1
T9

Note:

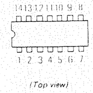
- Color code of sleeving over the end of the jacket.


WHT
RED
(RED)((GRY))

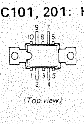
- ▪ : part mounted on the conductor side.
- ⌐▮← : indicates side identified with part number.
- ▒ : B+pattern
- Readings are taken under no-signal conditions with a VOM (20kΩ/V).
  ( ) : RECORD
  < > : AM
  no mark: FM or PLAYBACK

Replacement Semiconductors
For replacement, use smeiconductors except in ( ).

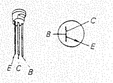
IC1: LA3301


14 13 12 11 10 9 8
1 2 3 4 5 6 7
(Top view)

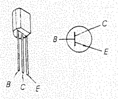
IC101, 201: HA1306W


9 7
10 8 6
1 3 5
2 4
(Top view)

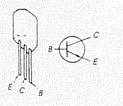
Q1, 9: 2SC930



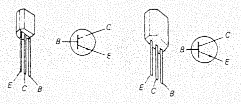
Q4-8 : 2SC710



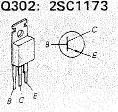
Q101,201 : 2SC632A (2SC631A)
Q103,105 :
Q106,203 : }2SC634A (2SC633A)
Q205,206,301 :
Q104,204 : 2SC632A (2SC631)
Q303,603 : 2SC634A (2SC633)



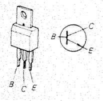
Q102,202: 2SC1364 (2SC633A)


B
C
E
E C B
B
C
E
E C B

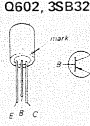
Q302: 2SC1173



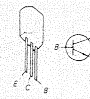
Q601: 2SC1761



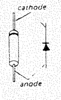
Q602, 3SB324 (2SA475)


mark
B
C
E
E B C

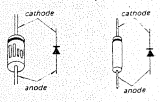
D1 : 2SC634A



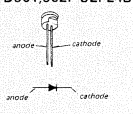
D2,3 : 1T261
D4,5 : 1T22A
D101,201,602 : 1S1555 (1T40)
D102, 103 :
D202,203,304 : }1T22A (1T22)
D301,302 : 10E2
D601 : 10E2 (10E1)


cathode
anode

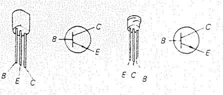
D303: EQB01-08 (RD7.5E)


cathode
anode
cathode
anode

D901,902: SLP24B


anode
cathode
anode
cathode

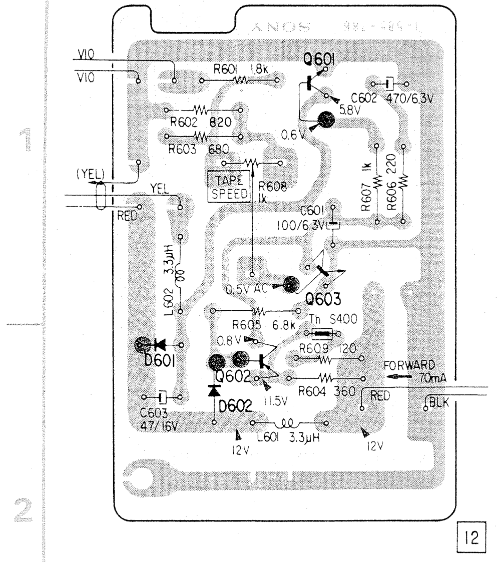
Q2, 3: 2SC1129 (2SC668)


B
C
E
B E C
B
C
E
E C B

SECTION 4
DIAGRAMS

4-1. MOUNTING DIAGRAM

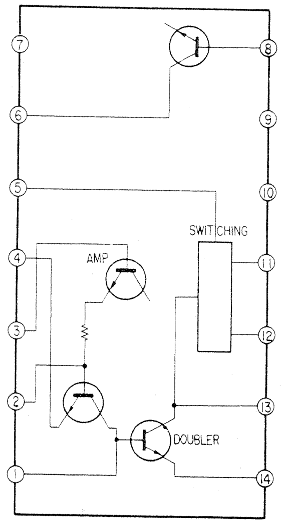
– Servo Amp, Radio and Audio Amp Boards –


A
1
2
V10
V10
(YEL)
YEL
RED
R601 18k
Q601
C602 470/6.3V
R602 820
R603 680
0.6V
5.8V
TAPE SPEED
R608 1k
R607 1k
R606 220
C601 100/6.3V
L602 3.3μH
0.5V AC
Q603
R605 6.8k
Th S400
D601
0.8V
Q602
R609 120
FORWARD 70mA
D602
11.5V
R604 360
RED
BLK
C603 47/16V
L601 3.3μH
12V
12V
12

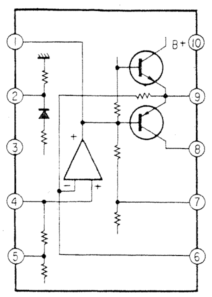
【SERVO AMP BOARD】(CONDUCTOR SIDE)

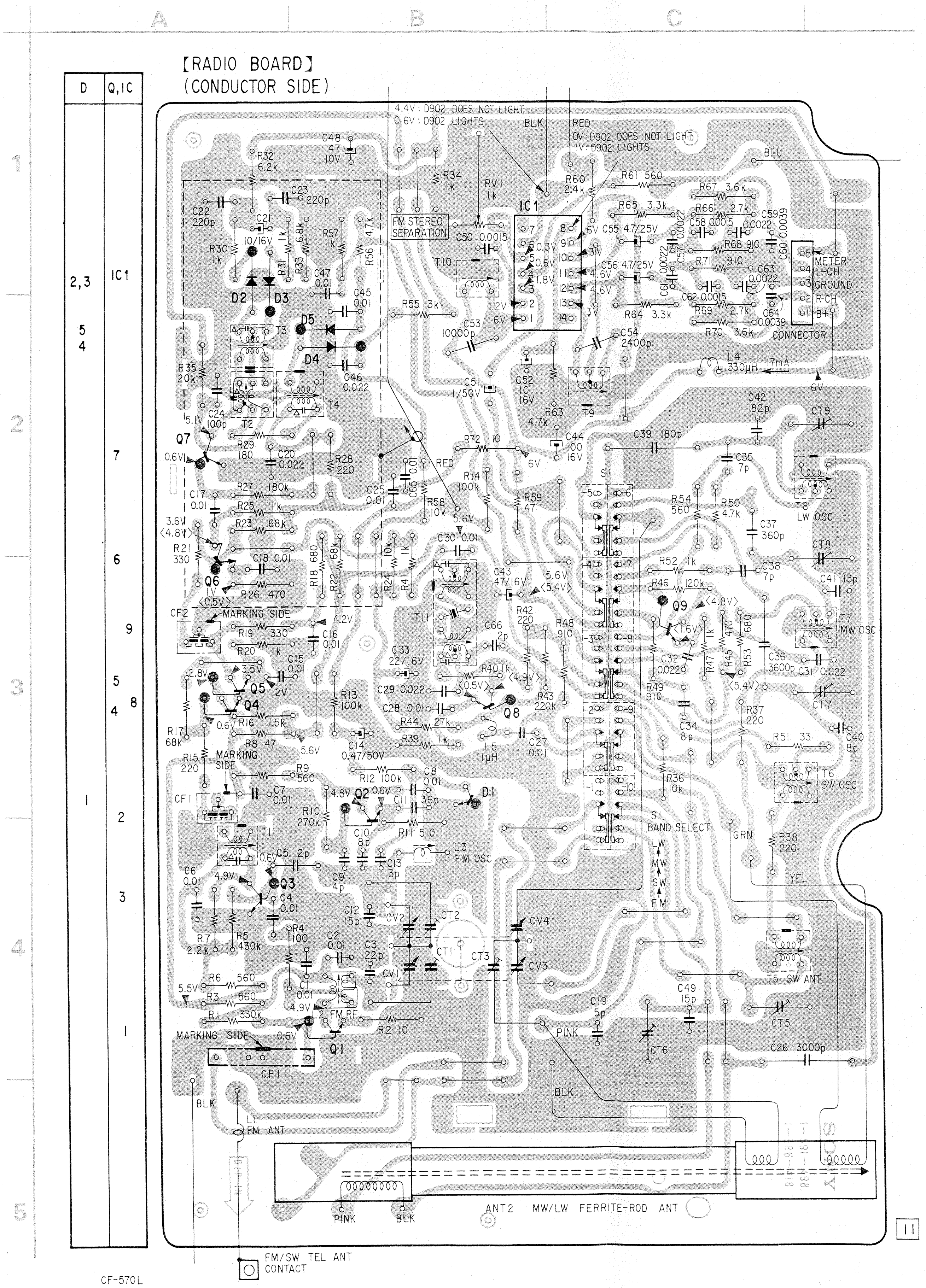
D · Q	D601	D602	Q602	Q601 Q603

IC1 LA3301


AMP
SWITCHING
DOUBLER
1
2
3
4
5
6
7
8
9
10
11
12
13
14

IC101,201
HA1306W

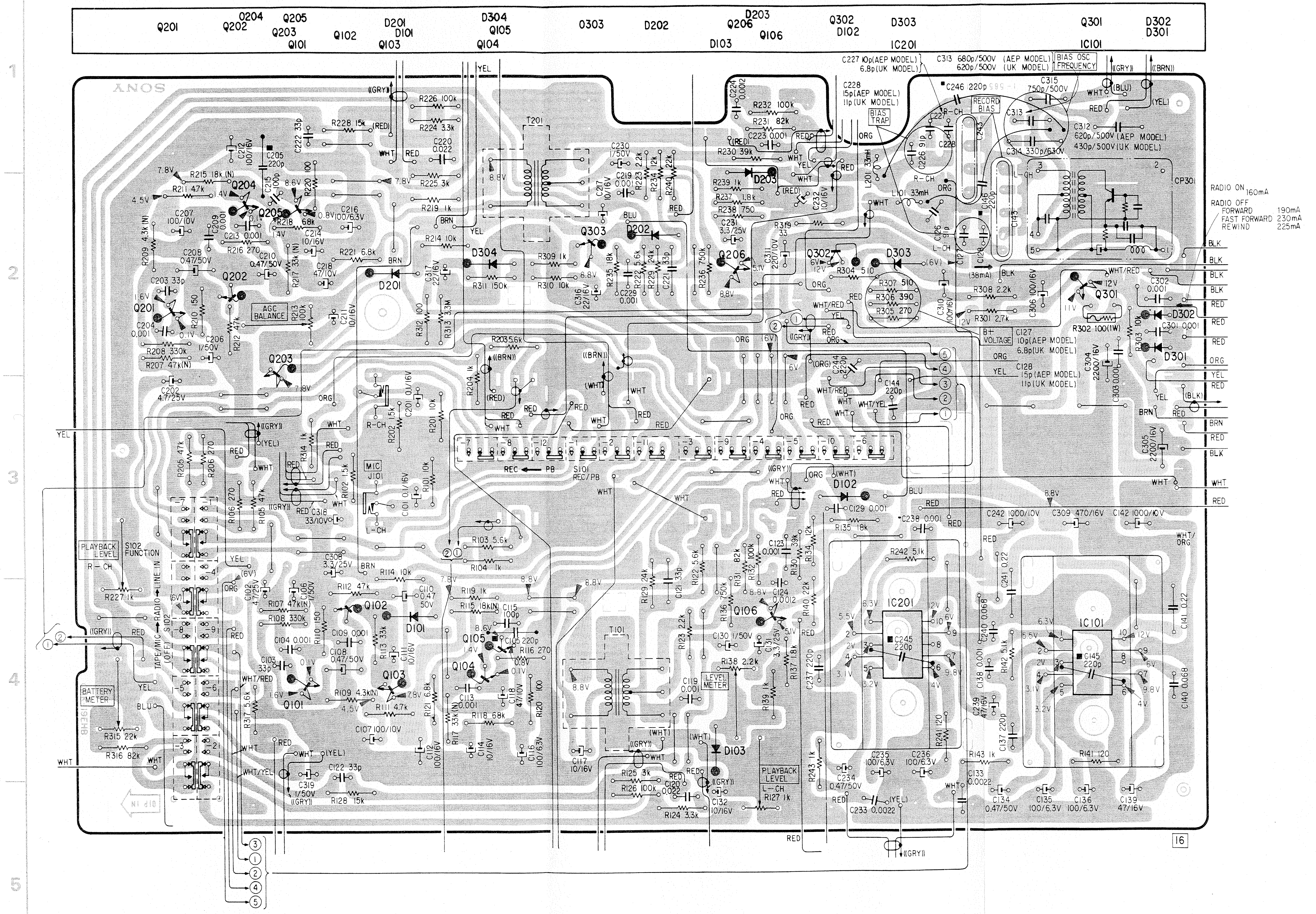

B+ 10
1
2
3
4
5
6
7
8
9


A
B
C
1
2
3
4
5
D
Q,IC
2,3
IC1
5
4
7
6
9
5
8
4
2
1
3
1
4.4V: D902 DOES NOT LIGHT
0.6V: D902 LIGHTS
BLK
RED
0V: D902 DOES NOT LIGHT
1V: D902 LIGHTS
BLU
FM STEREO SEPARATION
IC1
METER
L-CH
GROUND
R-CH
B+
CONNECTOR
L4 330μH
17mA
6V
T8 LW OSC
T7 MW OSC
T6 SW OSC
S1 BAND SELECT
LW
MW
SW
FM
GRN
YEL
T5 SW ANT
CT5
CT6
PINK
BLK
MARKING SIDE
CP1
L1 FM ANT
ANT2 MW/LW FERRITE-ROD ANT
PINK
BLK
L3 FM OSC
FM RF
Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q8
Q9
D1
D2
D3
D4
D5
T1
T2
T3
T4
T9
T10
T11
CF1
CF2
CV1
CV2
CV3
CV4
CT1
CT2
CT3
11
FM/SW TEL ANT CONTACT

【RADIO BOARD】
(CONDUCTOR SIDE)

A B C D E F

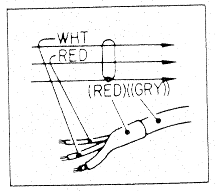
【AUDIO AMP BOARD】(CONDUCTOR SIDE)


Q201
Q202
Q204
Q205
Q203
Q101
Q102
D201
D101
Q103
D304
Q105
Q104
D303
D202
D203
Q206
Q106
D103
Q302
D102
D303
IC201
Q301
IC101
D302
D301
SONY
T201
T101
S101 REC/PB
REC ← PB
S102 FUNCTION
PLAYBACK LEVEL R-CH
PLAYBACK LEVEL L-CH
AGC BALANCE
MIC J101
BATTERY METER
LEVEL METER
BIAS TRAP
RECORD BIAS
BIAS OSC FREQUENCY
B+ VOLTAGE
CP301
RADIO ON 160mA
RADIO OFF FORWARD 190mA
FAST FORWARD 230mA
REWIND 225mA
C227 10p(AEP MODEL) 6.8p(UK MODEL)
C313 680p/500V (AEP MODEL) 620p/500V (UK MODEL)
C228 15p(AEP MODEL) 11p(UK MODEL)
C315 750p/500V
C312 620p/500V (AEP MODEL) 430p/500V (UK MODEL)
C314 330p/630V
C127 10p(AEP MODEL) 6.8p(UK MODEL)
C128 15p(AEP MODEL) 11p(UK MODEL)
TAPE/MIC ← RADIO → LINE IN
DIP IN
16

4-2. MOUNTING DIAGRAM

Note:

- Color code of sleeving over the end of the jacket.


WHT
RED
(RED)((GRY))

- ■ : part mounted on the conductor side.
- [‑▮‑ : indicates side identified with part number.
- ▨ : B+ pattern
- Signal Path

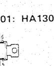
— — —▸ : FM
—·—·—▸ : L-CH } audio playback
—··—··—▸ : R-CH } audio playback

- Ⓕ : fusible resistor.
- Readings are taken under no-signal conditions

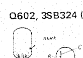
with a VOM (20kΩ/V).
(   ) : RECORD
<   > : AM
no mark : FM or PLAYBACK

Replacement Semiconductors
For replacement, use smeiconductors except in (   ).

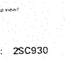
IC1: LA3301


14 13 12 11 10 9 8
1 2 3 4 5 6 7
(Top view)

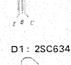
Q601: 2SC1761



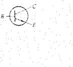
IC101, 201: HA1306W


9 7
10 8 6
1 3 5
2 4
(Top view)

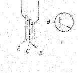
Q602, 3SB324 (2SA475)


mark
E B C
B
C
E

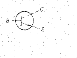
Q1, 9: 2SC930



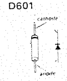
D1: 2SC634A



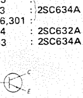
Q4-8: 2SC710



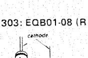
D2,3 : 1T261
D4,5 : 1T22A
D101,201,602 : 1S1555 (1T40)
D102, 103 : 1T22A (1T22)
D202,203,304 : 1T22A (1T22)
D301,302 : 10E2
D601 : 10E2 (10E1)


cathode
anode

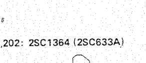
Q101,201 : 2SC632A (2SC631A)
Q103,105 : 2SC634A (2SC633A)
Q106,203 : 2SC634A (2SC633A)
Q205,206,301 : 2SC634A (2SC633A)
Q104,204 : 2SC632A (2SC631)
Q303,603 : 2SC634A (2SC633)



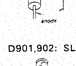
D303: EQB01-08 (RD7.5E)


cathode
anode
cathode
anode

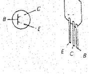
Q102,202: 2SC1364 (2SC633A)


E C B
B
C
E
E C B
B
C
E

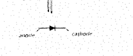
D901,902: SLP24B

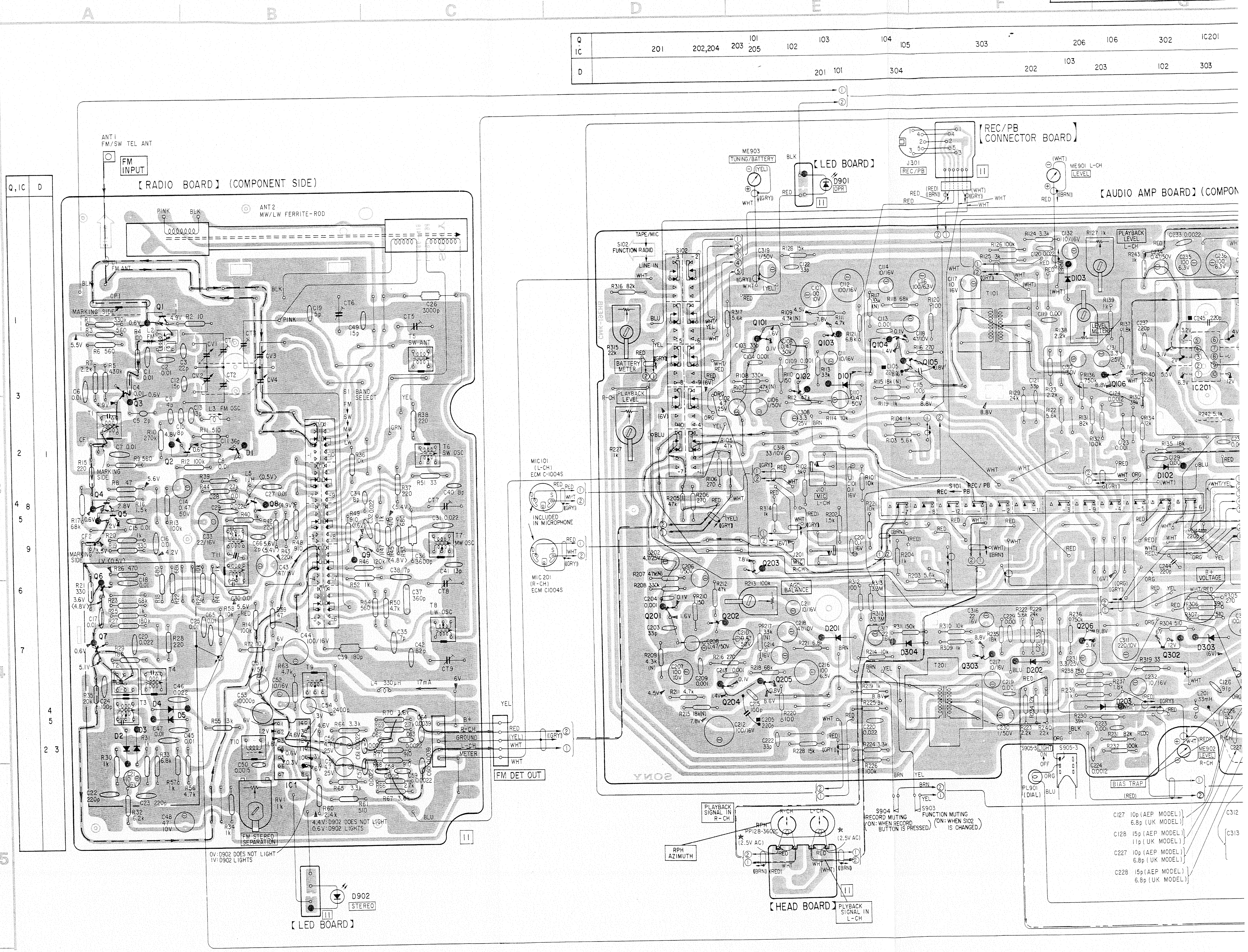

anode
cathode
anode
cathode

Q302: 2SC1173

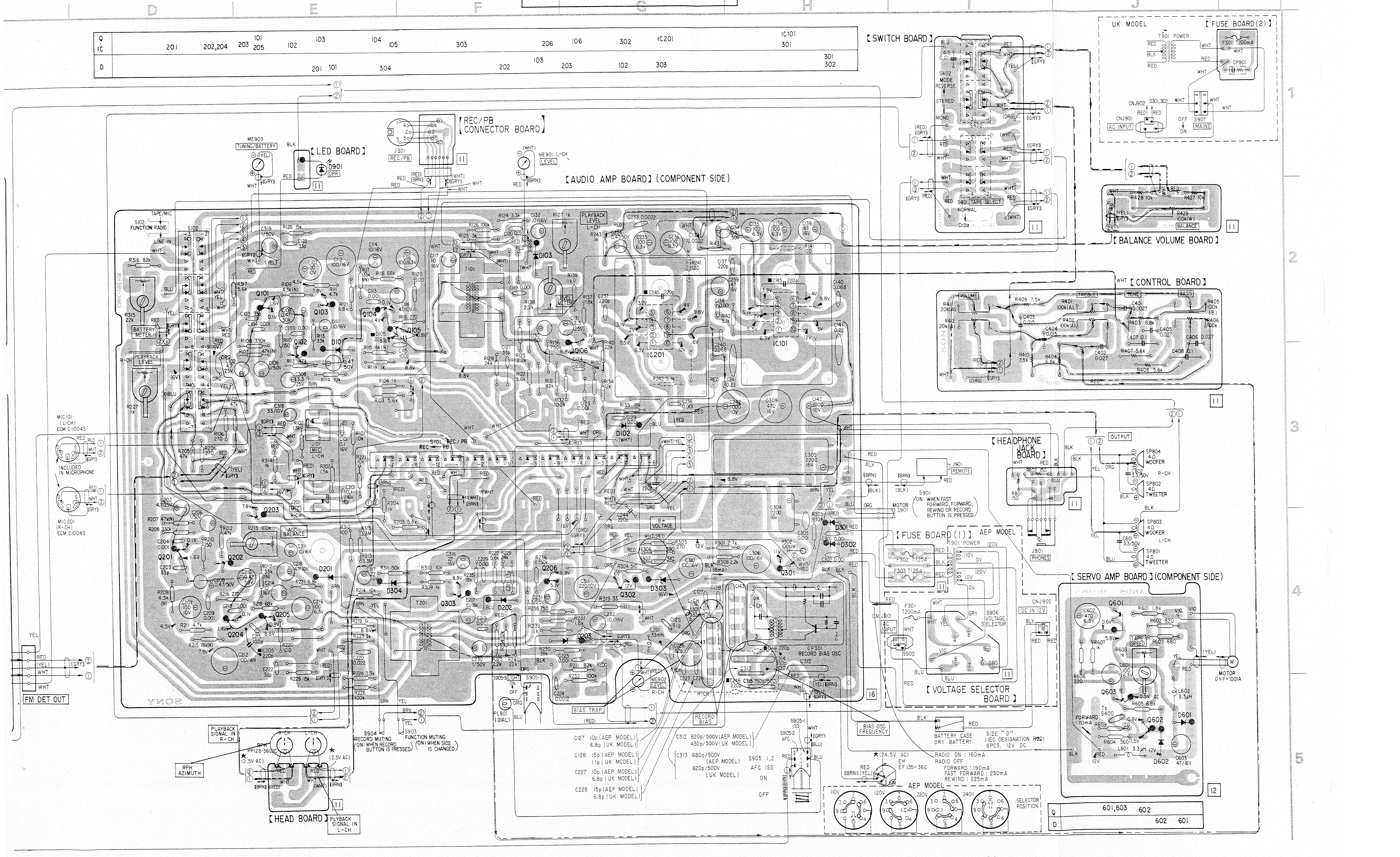


Q2, 3: 2SC1129 (2SC668)


B E C
B
C
E
E C B
B
C
E


A
B
C
D
E
F
G
1
2
3
4
5
Q, IC
D
Q
IC
D
ANT I
FM/SW TEL ANT
FM INPUT
[RADIO BOARD] (COMPONENT SIDE)
ANT 2
MW/LW FERRITE-ROD
PINK
BLK
FM ANT
MARKING SIDE
S1 BAND SELECT
FM
SW
MW
LW
L3 FM OSC
T6 SW OSC
T7 MW OSC
T8 LW OSC
SW ANT
IC1
RV1 1k
FM STEREO SEPARATION
0V: D902 DOES NOT LIGHT
1V: D902 LIGHTS
4.4V: D902 DOES NOT LIGHT
0.6V: D902 LIGHTS
B+
R-CH
GROUND
L-CH
METER
FM DET OUT
D902
STEREO
[LED BOARD]
ME903
TUNING/BATTERY
[LED BOARD]
D901
OPR
J301
REC/PB
[REC/PB CONNECTOR BOARD]
ME901 L-CH
LEVEL
[AUDIO AMP BOARD] (COMPONENT SIDE)
S102
FUNCTION RADIO
TAPE/MIC
LINE IN
BATTERY METER
PLAYBACK LEVEL
MIC101
(L-CH)
ECM C-1004S
INCLUDED IN MICROPHONE
MIC201
(R-CH)
ECM C1004S
J101 MIC L-CH
J201 MIC R-CH
AGC BALANCE
S101 REC/PB
REC
PB
PLAYBACK LEVEL L-CH
LEVEL METER
IC201
R+ VOLTAGE
BIAS TRAP
ME902 LEVEL R-CH
PL901 (DIAL)
S905-3
S905-2
ON
OFF
S904
RECORD MUTING
(ON: WHEN RECORD BUTTON IS PRESSED)
S903
FUNCTION MUTING
(ON: WHEN S102 IS CHANGED)
PLAYBACK SIGNAL IN R-CH
RPH
PP128-3602
(2.5V AC)
RPH AZIMUTH
[HEAD BOARD]
PLAYBACK SIGNAL IN L-CH
SONY
C127 10p (AEP MODEL)
6.8p (UK MODEL)
C128 15p (AEP MODEL)
11p (UK MODEL)
C227 10p (AEP MODEL)
6.8p (UK MODEL)
C228 15p (AEP MODEL)
6.8p (UK MODEL)

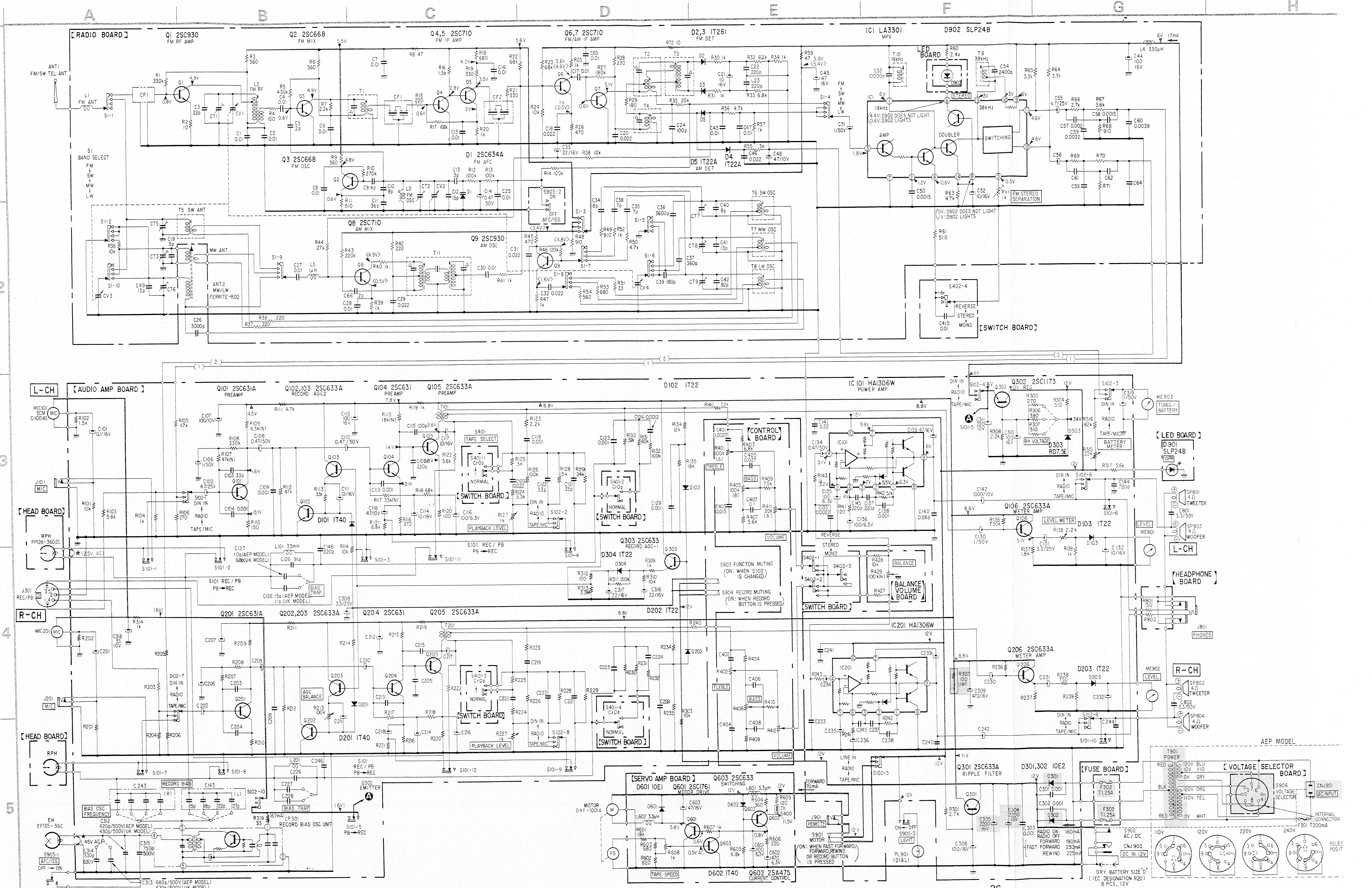
Q IC	201, 202,204, 203, 101, 205, 102, 103, 104, 105, 303, 206, 106, 302, IC201, IC101, 301
D	201, 101, 304, 202, 103, 203, 102, 303, 301, 302

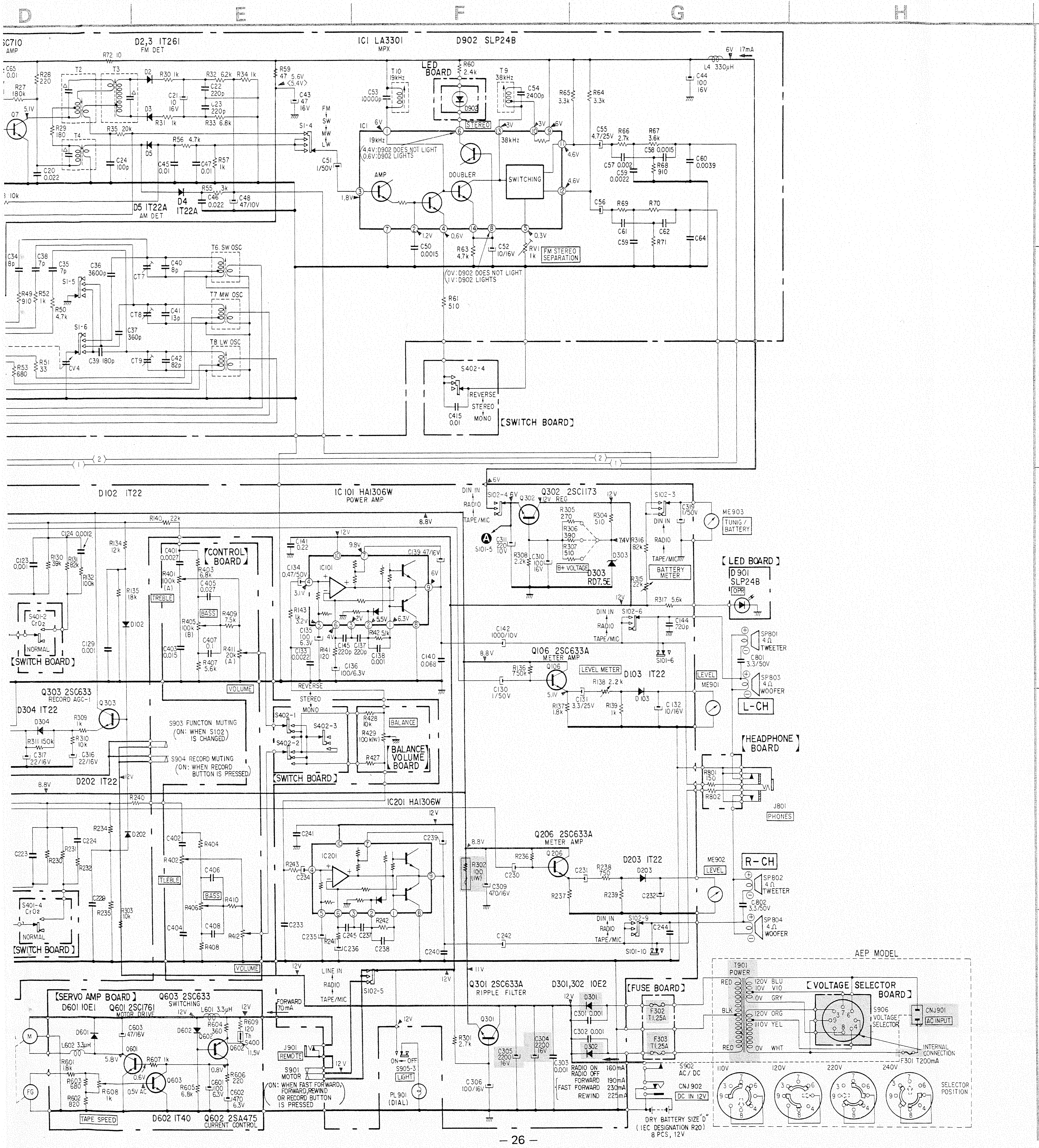


【SWITCH BOARD】
【FUSE BOARD(2)】
UK MODEL
【REC/PB CONNECTOR BOARD】
【LED BOARD】
【AUDIO AMP BOARD】(COMPONENT SIDE)
【BALANCE VOLUME BOARD】
【CONTROL BOARD】
【HEADPHONE JACK BOARD】
【FUSE BOARD(1)】
AEP MODEL
【VOLTAGE SELECTOR BOARD】
【SERVO AMP BOARD】(COMPONENT SIDE)
【HEAD BOARD】
ME903 TUNING/BATTERY
ME901 L-CH LEVEL
ME902 LEVEL R-CH
S102 FUNCTION RADIO
TAPE/MIC
LINE IN
BATTERY METER
PLAYBACK LEVEL
MIC101 (L-CH) ECM C-1004S
INCLUDED IN MICROPHONE
MIC201 (R-CH) ECM C1004S
FM DET OUT
S402 MODE REVERSE STEREO MONO
S401 TAPE SELECT NORMAL CrO2
R428 10k R427 10k R429 100k(W) BALANCE
VOLUME TREBLE TONE BASS
OUTPUT
SP804 4Ω WOOFER R-CH
SP802 4Ω TWEETER
SP803 4Ω WOOFER L-CH
SP801 4Ω TWEETER
J801 PHONES
J901 REMOTE
S901 (ON: WHEN FAST FORWARD, FORWARD, REWIND OR RECORD BUTTON IS PRESSED)
MOTOR S901
T901 POWER
F302 T1.25A
F303 T1.25A
F301 T200mA
CNJ901 AC INPUT
CNJ902 DC IN 12V
S906 VOLTAGE SELECTOR
S907 MAINS
S902
BIAS OSC FREQUENCY
BATTERY CASE DRY BATTERY
SIZE "D" (IEC DESIGNATION R20) 8PCS. 12V DC
RADIO ON: 160mA
RADIO OFF
FORWARD: 190mA
FAST FORWARD: 230mA
REWIND: 225mA
EH EF135-36C
MOTOR DNF-1001A
FORWARD 70mA
TAPE SPEED
S905-1 ISS
S905-2 AFC
S905 1,2 AFC ISS ON OFF
S904 RECORD MUTING (ON: WHEN RECORD BUTTON IS PRESSED)
S903 FUNCTION MUTING (ON: WHEN S102 IS CHANGED)
PLAYBACK SIGNAL IN R-CH
PLAYBACK SIGNAL IN L-CH
RPH AZIMUTH
RPH PP128-3602C
PL901 (DIAL)
BIAS TRAP
RECORD BIAS
CP301 RECORD BIAS OSC
C127 10p(AEP MODEL) 6.8p(UK MODEL)
C128 15p(AEP MODEL) 11p(UK MODEL)
C227 10p(AEP MODEL) 6.8p(UK MODEL)
C228 15p(AEP MODEL) 6.8p(UK MODEL)
C312 620p/500V(AEP MODEL) 430p/500V(UK MODEL)
C313 680p/500V (AEP MODEL) 620p/500V (UK MODEL)
SELECTOR POSITION
110V 120V 220V 240V
IC201 IC101
S101 REC/PB
AGC BALANCE
B+ VOLTAGE
T101 T201
LEVEL METER

Q	601,603	602
D	602	601

4-3. SCHEMATIC DIAGRAM


A
B
C
D
E
F
G
H
1
2
3
4
5
[RADIO BOARD]
Q1 2SC930 FM RF AMP
Q2 2SC668 FM MIX
Q4,5 2SC710 FM IF AMP
Q6,7 2SC710 FM/AM IF AMP
D2,3 1T261 FM DET
IC1 LA3301 MPX
D902 SLP24B
LED BOARD
ANT1 FM/SW TEL ANT
S1 BAND SELECT FM SW MW LW
Q3 2SC668 FM OSC
D1 2SC634A FM AFC
D5 1T22A AM DET
D4 1T22A
T5 SW ANT
MW ANT
ANT2 MW/LW FERRITE-ROD
Q8 2SC710 AM MIX
Q9 2SC930 AM OSC
T6 SW OSC
T7 MW OSC
T8 LW OSC
S402-4 REVERSE STEREO MONO
[SWITCH BOARD]
FM STEREO SEPARATION
AMP
DOUBLER
SWITCHING
STEREO
(4.4V:D902 DOES NOT LIGHT 0.6V:D902 LIGHTS)
(0V:D902 DOES NOT LIGHT 1V:D902 LIGHTS)
L-CH
[AUDIO AMP BOARD]
MIC101 ECM CH004G
Q101 2SC631A PREAMP
Q102,103 2SC633A RECORD AGC2
Q104 2SC631 PREAMP
Q105 2SC633A PREAMP
D102 1T22
IC101 HA1306W POWER AMP
Q302 2SC1173 12V REG
D303 RD7.5E
ME903 TUNIG/BATTERY
[LED BOARD] D901 SLP24B
S401 TAPE SELECT
NORMAL
CrO2
[SWITCH BOARD]
PLAYBACK LEVEL
[CONTROL BOARD]
TREBLE
BASS
VOLUME
BALANCE
[BALANCE VOLUME BOARD]
J101 MIC
[HEAD BOARD]
RPH PP128-3602C
J301 REC/PB
D101 1T40
S101 REC/PB PB→REC
BIAS TRAP
Q303 2SC633 RECORD AGC-1
D304 1T22
S903 FUNCTON MUTING (ON: WHEN S102 IS CHANGED)
S904 RECORD MUTING (ON: WHEN RECORD BUTTON IS PRESSED)
Q106 2SC633A METER AMP
D103 1T22
LEVEL METER
ME901 LEVEL
SP801 4Ω TWEETER
SP803 4Ω WOOFER
[HEADPHONE BOARD]
J801 PHONES
R-CH
Q201 2SC631A
Q202,203 2SC633A
Q204 2SC631
Q205 2SC633A
D202 1T22
IC201 HA1306W
Q206 2SC633A METER AMP
D203 1T22
ME902 LEVEL
SP802 4Ω TWEETER
SP804 4Ω WOOFER
J201 MIC
AGC BALANCE
D201 1T40
RECORD BIAS
BIAS OSC FREQUENCY
EH EF135-36C
S905-1 AFC/ISS OFF ON
CP301 RECORD BIAS OSC UNIT
Q302 EMITTER
[SERVO AMP BOARD]
D601 10E1
Q601 2SC1761 MOTOR DRIVE
Q603 2SC633 SWITCHING
MOTOR DNF-1001A
FG
TAPE SPEED
D602 1T40
Q602 2SA475 CURRENT CONTROL
J901 REMOTE
S901 MOTOR (ON: WHEN FAST FORWARD, FORWARD, REWIND OR RECORD BUTTON IS PRESSED)
S905-3 LIGHT
PL901 (DIAL)
Q301 2SC633A RIPPLE FILTER
D301,302 10E2
[FUSE BOARD]
F302 T1.25A
F303 T1.25A
S902 AC/DC
CNJ902 DC IN 12V
RADIO ON 160mA
RADIO OFF FORWARD 190mA
FAST FORWARD 230mA
REWIND 225mA
DRY BATTERY SIZE "D" (IEC DESIGNATION R20) 8 PCS, 12V
AEP MODEL
T901 POWER
[VOLTAGE SELECTOR BOARD]
S906 VOLTAGE SELECTOR
CNJ901 AC INPUT
INTERNAL CONNECTION
F301 T200mA
110V
120V
220V
240V
SELEC POSIT

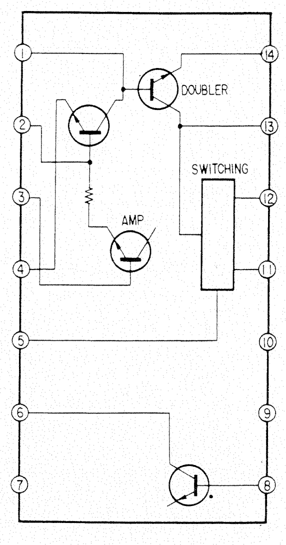

D
E
F
G
H
1
2
3
4
5
D2,3 1T261 FM DET
IC1 LA3301 MPX
D902 SLP24B
LED BOARD
STEREO
AMP
DOUBLER
SWITCHING
FM STEREO SEPARATION
(4.4V: D902 DOES NOT LIGHT / 0.6V: D902 LIGHTS)
(0V: D902 DOES NOT LIGHT / 1V: D902 LIGHTS)
D5 1T22A AM DET
D4 1T22A
T6 SW OSC
T7 MW OSC
T8 LW OSC
S402-4
REVERSE
STEREO
MONO
[SWITCH BOARD]
D102 1T22
IC101 HA1306W POWER AMP
[CONTROL BOARD]
TREBLE
BASS
VOLUME
[SWITCH BOARD]
NORMAL
Q303 2SC633 RECORD AGC-1
D304 1T22
S903 FUNCTION MUTING (ON: WHEN S102 IS CHANGED)
S904 RECORD MUTING (ON: WHEN RECORD BUTTON IS PRESSED)
BALANCE
[BALANCE VOLUME BOARD]
D202 1T22
IC201 HA1306W
Q302 2SC1173 12V REG
D303 RD7.5E
B+ VOLTAGE
BATTERY METER
ME903 TUNIG/BATTERY
[LED BOARD]
D901 SLP24B
OPR
Q106 2SC633A METER AMP
LEVEL METER
D103 1T22
LEVEL
ME901
SP801 4Ω TWEETER
SP803 4Ω WOOFER
L-CH
[HEADPHONE BOARD]
J801 PHONES
Q206 2SC633A METER AMP
D203 1T22
ME902 LEVEL
R-CH
SP802 4Ω TWEETER
SP804 4Ω WOOFER
DIN IN
RADIO
TAPE/MIC
[SERVO AMP BOARD]
D601 10E1
Q601 2SC1761 MOTOR DRIVE
Q603 2SC633 SWITCHING
TAPE SPEED
D602 1T40
Q602 2SA475 CURRENT CONTROL
FORWARD 70mA
J901 REMOTE
S901 MOTOR (ON: WHEN FAST FORWARD, FORWARD, REWIND OR RECORD BUTTON IS PRESSED)
S905-3 LIGHT
PL901 (DIAL)
LINE IN
Q301 2SC633A RIPPLE FILTER
D301,302 10E2
RADIO ON 160mA
RADIO OFF FORWARD 190mA
FAST FORWARD 230mA
REWIND 225mA
[FUSE BOARD]
F302 T1.25A
F303 T1.25A
S902 AC/DC
CNJ902 DC IN 12V
DRY BATTERY SIZE "D" (IEC DESIGNATION R20) 8 PCS, 12V
AEP MODEL
T901 POWER
[VOLTAGE SELECTOR BOARD]
S906 VOLTAGE SELECTOR
CNJ901 AC INPUT
INTERNAL CONNECTION
F301 T200mA
110V
120V
220V
240V
SELECTOR POSITION

Note:

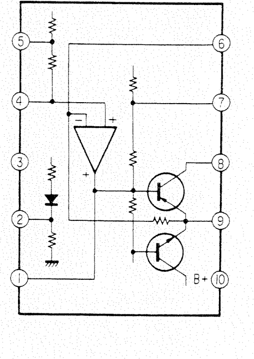
- Components for right channel have the same values as for left channel. Reference numbers are coded from 200.
- All capacitors are in μF unless otherwise noted. pF = μμF 50 WV or less are not indicated except for electrolytics.
- All resistors are in ohms, ¼ W unless otherwise noted. kΩ = 1000Ω, MΩ = 1000 kΩ
- ▭ : fusible resistor.
- (N) : low-noise capacitor and resistor.
- △ : internal component.
- ——— : B+ bus.
- ▭ : panel designation.
- ▭ : adjustment for repair.
- Transistor is used for D1.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal conditions with a VOM (20kΩ/V).
  ( ) : RECORD
  < > : AM
  no mark: FM or PLAYBACK
- AC voltage readings indicated by ★ in the bias oscillator circuit are taken with a VTVM.
- Transistor base-emitter voltages are measured on the 2.5V range.
- Total current is measured with no cassette installed.
- Voltage variations may be noted due to normal production tolerances.
- Switch

Ref. No.	Switch	Position
S1	BAND SELECT	FM
S101	REC/PB	PB
S102	FUNCTION	TAPE/MIC
S401	TAPE SELECT	NORMAL
S402	MODE	STEREO
S901	MOTOR	OFF
S902	AC/DC	DC
S903	FUNCTION MUTING	OFF
S904	RECORD MUTING	OFF
S905-1,2	AFC/ISS	OFF
S905-3,4	LIGHT	OFF
S906	VOLTAGE SELECTOR (AEP MODEL)	—
S907	MAINS (UK MODEL)	OFF

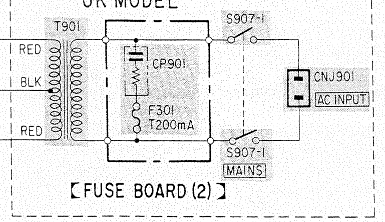
IC1 LA3301


DOUBLER
SWITCHING
AMP
1
2
3
4
5
6
7
8
9
10
11
12
13
14

IC101, 201
HA1306W


1
2
3
4
5
6
7
8
9
10
B+

UK MODEL

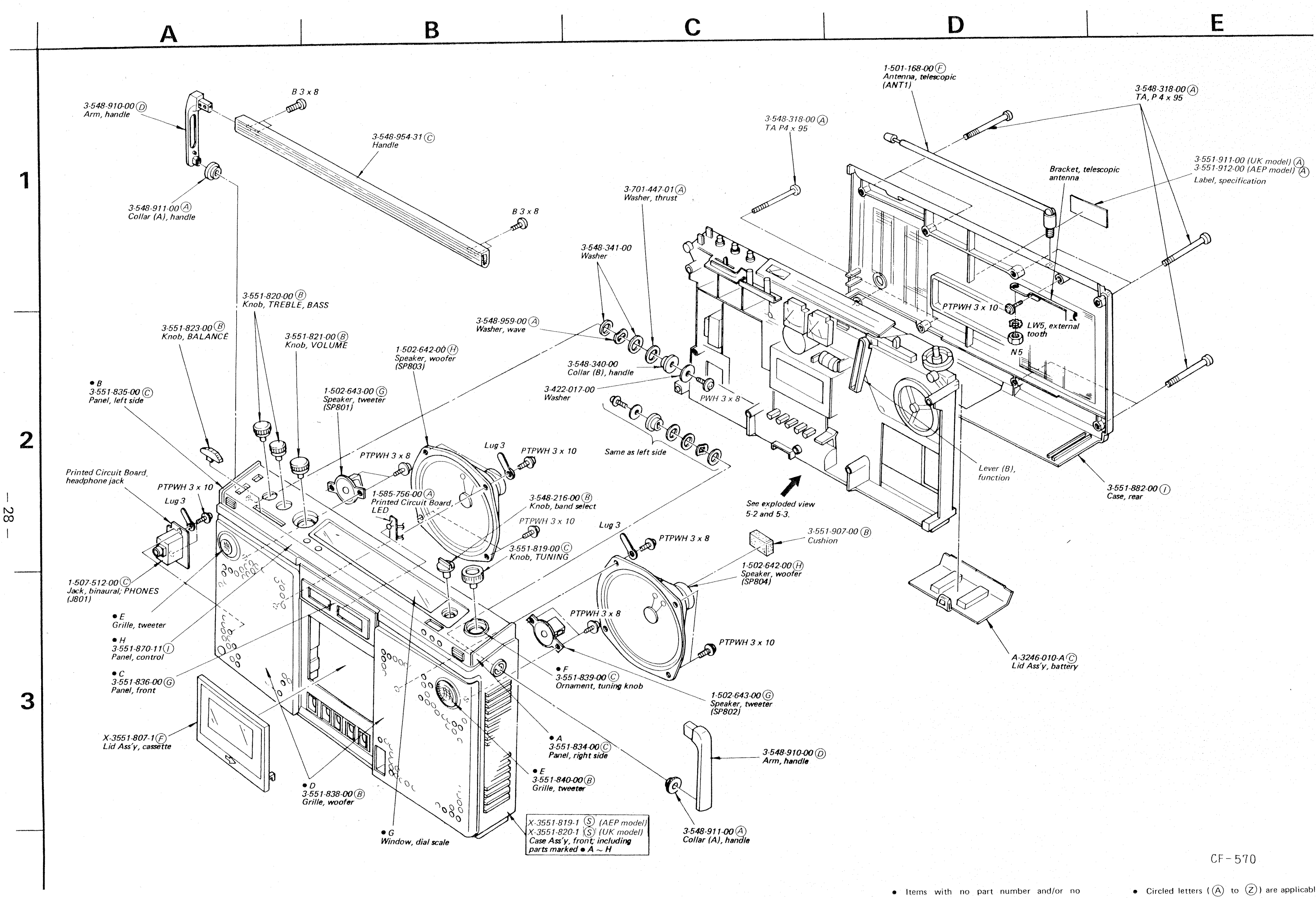

T901
RED
BLK
RED
CP901
F301 T200mA
S907-1
S907-1 MAINS
CNJ901 AC INPUT

[FUSE BOARD (2)]

Note: The components identified by shading are critical for safety. Replace only with part number specified.

SECTION 5
EXPLODED VIEWS

5-1.


A
B
C
D
E
1
2
3
3-548-910-00 Ⓓ
Arm, handle
B 3 x 8
3-548-954-31 Ⓒ
Handle
3-548-911-00 Ⓐ
Collar (A), handle
B 3 x 8
3-548-318-00 Ⓐ
TA P4 x 95
3-701-447-01 Ⓐ
Washer, thrust
3-548-341-00
Washer
1-501-168-00 Ⓕ
Antenna, telescopic
(ANT1)
3-548-318-00 Ⓐ
TA, P 4 x 95
3-551-911-00 (UK model) Ⓐ
3-551-912-00 (AEP model) Ⓐ
Label, specification
Bracket, telescopic antenna
PTPWH 3 x 10
LW5, external tooth
N5
3-551-820-00 Ⓑ
Knob, TREBLE, BASS
3-551-823-00 Ⓑ
Knob, BALANCE
3-551-821-00 Ⓑ
Knob, VOLUME
3-548-959-00 Ⓐ
Washer, wave
1-502-642-00 Ⓗ
Speaker, woofer
(SP803)
3-548-340-00
Collar (B), handle
3-422-017-00
Washer
PWH 3 x 8
● B
3-551-835-00 Ⓒ
Panel, left side
1-502-643-00 Ⓖ
Speaker, tweeter
(SP801)
Same as left side
Lug 3
PTPWH 3 x 10
PTPWH 3 x 8
Lever (B), function
3-551-882-00 Ⓘ
Case, rear
Printed Circuit Board, headphone jack
PTPWH 3 x 10
Lug 3
1-585-756-00 Ⓐ
Printed Circuit Board, LED
3-548-216-00 Ⓑ
Knob, band select
See exploded view 5-2 and 5-3.
PTPWH 3 x 10
Lug 3
3-551-907-00 Ⓑ
Cushion
3-551-819-00 Ⓒ
Knob, TUNING
PTPWH 3 x 8
1-507-512-00 Ⓒ
Jack, binaural; PHONES
(J801)
1-502-642-00 Ⓗ
Speaker, woofer
(SP804)
● E
Grille, tweeter
PTPWH 3 x 8
● H
3-551-870-11 Ⓘ
Panel, control
PTPWH 3 x 10
A-3246-010-A Ⓒ
Lid Ass'y, battery
● C
3-551-836-00 Ⓖ
Panel, front
● F
3-551-839-00 Ⓒ
Ornament, tuning knob
1-502-643-00 Ⓖ
Speaker, tweeter
(SP802)
X-3551-807-1 Ⓕ
Lid Ass'y, cassette
● A
3-551-834-00 Ⓒ
Panel, right side
3-548-910-00 Ⓓ
Arm, handle
● E
3-551-840-00 Ⓑ
Grille, tweeter
● D
3-551-838-00 Ⓑ
Grille, woofer
● G
Window, dial scale
X-3551-819-1 Ⓢ (AEP model)
X-3551-820-1 Ⓢ (UK model)
Case Ass'y, front; including parts marked ● A ~ H
3-548-911-00 Ⓐ
Collar (A), handle

CF-570

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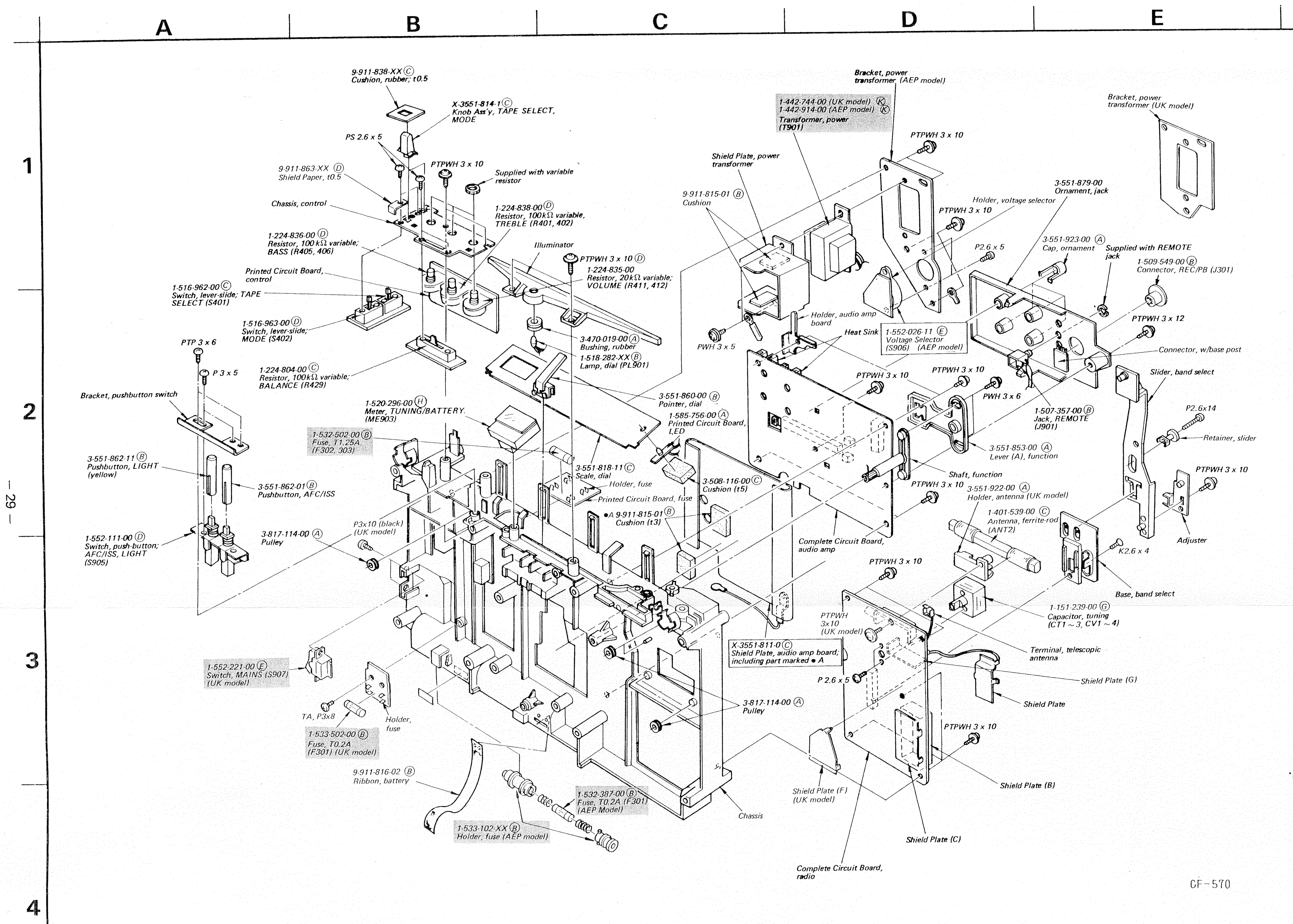
- All screws are Phillips (cross recess) type unless otherwise noted.
  (–) = slotted head.
- Circled letters (Ⓐ to Ⓩ) are applicable to European models only.

5-2.


A
B
C
D
E
1
2
3
4
9-911-838-XX Ⓒ
Cushion, rubber; t0.5
X-3551-814-1 Ⓒ
Knob Ass'y, TAPE SELECT, MODE
PS 2.6 x 5
Bracket, power transformer (AEP model)
1-442-744-00 (UK model) Ⓚ
1-442-914-00 (AEP model) Ⓚ
Transformer, power
(T901)
Bracket, power transformer (UK model)
PTPWH 3 x 10
9-911-863-XX Ⓓ
Shield Paper, t0.5
PTPWH 3 x 10
Supplied with variable resistor
Shield Plate, power transformer
9-911-815-01 Ⓑ
Cushion
3-551-879-00
Ornament, jack
Holder, voltage selector
PTPWH 3 x 10
Chassis, control
1-224-838-00 Ⓓ
Resistor, 100kΩ variable, TREBLE (R401, 402)
1-224-836-00 Ⓓ
Resistor, 100 kΩ variable; BASS (R405, 406)
P2.6 x 5
3-551-923-00 Ⓐ
Cap, ornament
Supplied with REMOTE jack
1-509-549-00 Ⓑ
Connector, REC/PB (J301)
Illuminator
PTPWH 3 x 10 Ⓓ
1-224-835-00
Resistor, 20kΩ variable; VOLUME (R411, 412)
Printed Circuit Board, control
1-516-962-00 Ⓒ
Switch, lever-slide; TAPE SELECT (S401)
Holder, audio amp board
Heat Sink
1-552-026-11 Ⓔ
Voltage Selector
(S906) (AEP model)
PTPWH 3 x 12
1-516-963-00 Ⓓ
Switch, lever-slide; MODE (S402)
3-470-019-00 Ⓐ
Bushing, rubber
1-518-282-XX Ⓑ
Lamp, dial (PL901)
PWH 3 x 5
Connector, w/base post
PTP 3 x 6
P 3 x 5
1-224-804-00 Ⓒ
Resistor, 100kΩ variable; BALANCE (R429)
PTPWH 3 x 10
PTPWH 3 x 10
Slider, band select
PWH 3 x 6
Bracket, pushbutton switch
1-520-296-00 Ⓗ
Meter, TUNING/BATTERY
(ME903)
3-551-860-00 Ⓑ
Pointer, dial
1-585-756-00 Ⓐ
Printed Circuit Board, LED
1-507-357-00 Ⓑ
Jack, REMOTE
(J901)
P2.6x14
Retainer, slider
1-532-502-00 Ⓑ
Fuse, T1.25A
(F302, 303)
3-551-853-00 Ⓐ
Lever (A), function
3-551-862-11 Ⓑ
Pushbutton, LIGHT
(yellow)
3-551-818-11 Ⓒ
Scale, dial
Holder, fuse
3-508-116-00 Ⓒ
Cushion (t5)
Shaft, function
PTPWH 3 x 10
3-551-922-00 Ⓐ
Holder, antenna (UK model)
PTPWH 3 x 10
3-551-862-01 Ⓑ
Pushbutton, AFC/ISS
Printed Circuit Board, fuse
● A 9-911-815-01 Ⓑ
Cushion (t3)
1-401-539-00 Ⓒ
Antenna, ferrite-rod
(ANT2)
Adjuster
1-552-111-00 Ⓓ
Switch, push-button; AFC/ISS, LIGHT
(S905)
3-817-114-00 Ⓐ
Pulley
P3x10 (black)
(UK model)
Complete Circuit Board, audio amp
K2.6 x 4
PTPWH 3 x 10
Base, band select
1-151-239-00 Ⓖ
Capacitor, tuning
(CT1 ~ 3, CV1 ~ 4)
PTPWH 3x10
(UK model)
X-3551-811-0 Ⓒ
Shield Plate, audio amp board; including part marked ● A
Terminal, telescopic antenna
1-552-221-00 Ⓔ
Switch, MAINS (S907)
(UK model)
P 2.6 x 5
Shield Plate (G)
3-817-114-00 Ⓐ
Pulley
Shield Plate
TA, P3x8
Holder, fuse
1-533-502-00 Ⓑ
Fuse, T0.2A
(F301) (UK model)
PTPWH 3 x 10
9-911-816-02 Ⓑ
Ribbon, battery
1-532-387-00 Ⓑ
Fuse, T0.2A (F301)
(AEP Model)
Shield Plate (F)
(UK model)
Shield Plate (B)
Chassis
1-533-102-XX Ⓑ
Holder, fuse (AEP model)
Shield Plate (C)
Complete Circuit Board, radio

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Note: The components identified by shading are critical for safety. Replace only with part number specified.

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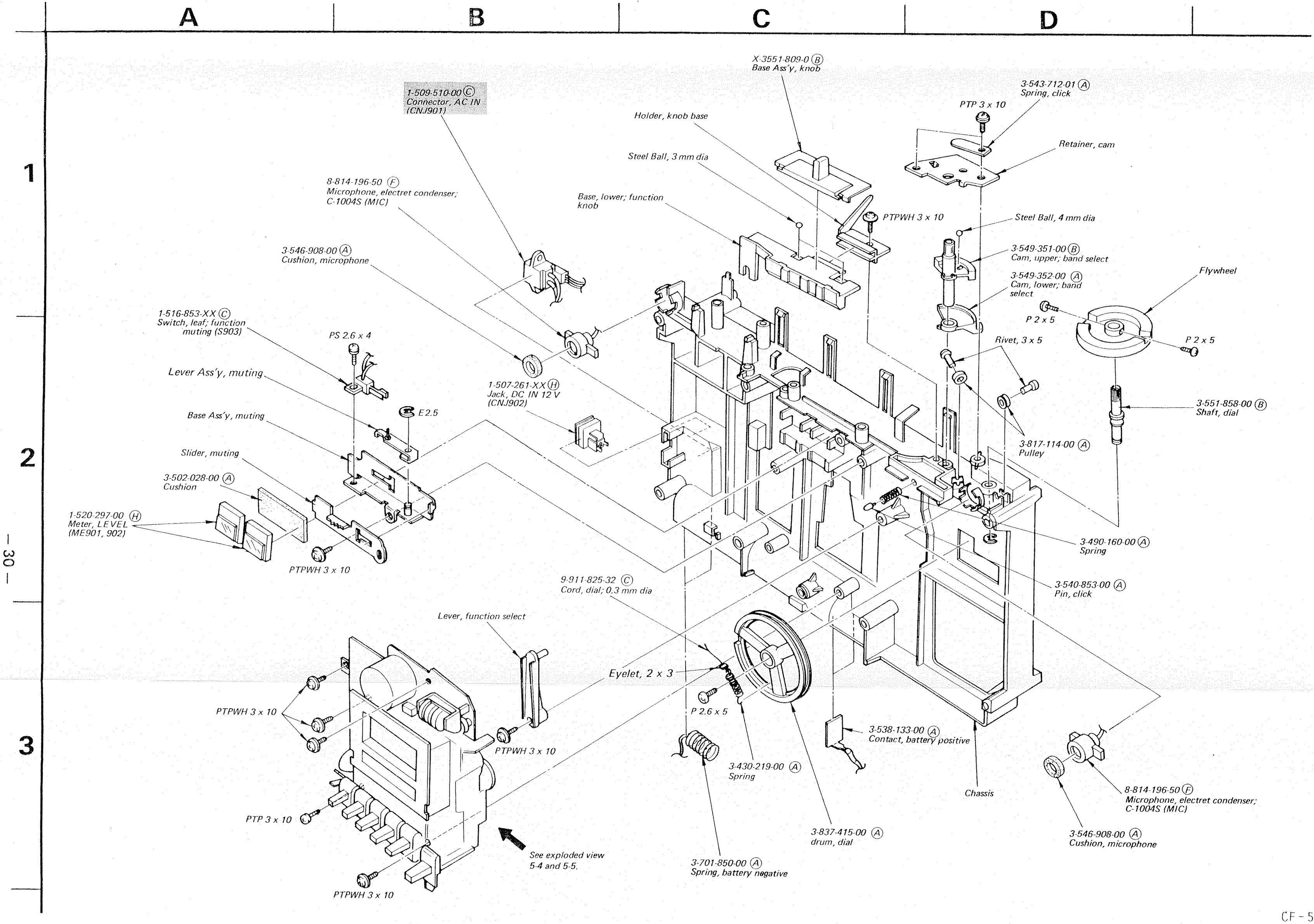
- All screws are Phillips (cross recess) type unless otherwise noted.
  (–) = slotted head.
- Circled letters (Ⓐ to Ⓩ) are applicable to European models only.

5-3.


A
B
C
D
1
2
3
X-3551-809-0 Ⓑ
Base Ass'y, knob
1-509-510-00 Ⓒ
Connector, AC IN
(CNJ901)
3-543-712-01 Ⓐ
Spring, click
PTP 3 x 10
Holder, knob base
Retainer, cam
Steel Ball, 3 mm dia
8-814-196-50 Ⓕ
Microphone, electret condenser;
C-1004S (MIC)
Base, lower; function
knob
PTPWH 3 x 10
Steel Ball, 4 mm dia
3-549-351-00 Ⓑ
Cam, upper; band select
3-546-908-00 Ⓐ
Cushion, microphone
3-549-352-00 Ⓐ
Cam, lower; band
select
Flywheel
P 2 x 5
1-516-853-XX Ⓒ
Switch, leaf; function
muting (S903)
PS 2.6 x 4
Rivet, 3 x 5
P 2 x 5
Lever Ass'y, muting
1-507-261-XX Ⓗ
Jack, DC IN 12 V
(CNJ902)
3-551-858-00 Ⓑ
Shaft, dial
E2.5
Base Ass'y, muting
3-817-114-00 Ⓐ
Pulley
Slider, muting
3-502-028-00 Ⓐ
Cushion
1-520-297-00 Ⓗ
Meter, LEVEL
(ME901, 902)
3-490-160-00 Ⓐ
Spring
PTPWH 3 x 10
9-911-825-32 Ⓒ
Cord, dial; 0.3 mm dia
3-540-853-00 Ⓐ
Pin, click
Lever, function select
Eyelet, 2 x 3
PTPWH 3 x 10
P 2.6 x 5
3-538-133-00 Ⓐ
Contact, battery positive
PTPWH 3 x 10
3-430-219-00 Ⓐ
Spring
Chassis
8-814-196-50 Ⓕ
Microphone, electret condenser;
C-1004S (MIC)
PTP 3 x 10
3-837-415-00 Ⓐ
drum, dial
3-546-908-00 Ⓐ
Cushion, microphone
See exploded view
5-4 and 5-5.
3-701-850-00 Ⓐ
Spring, battery negative
PTPWH 3 x 10

Note: The components identified by shading are critical for safety. Replace only with part number specified.

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  (–) = slotted head.

CF-570

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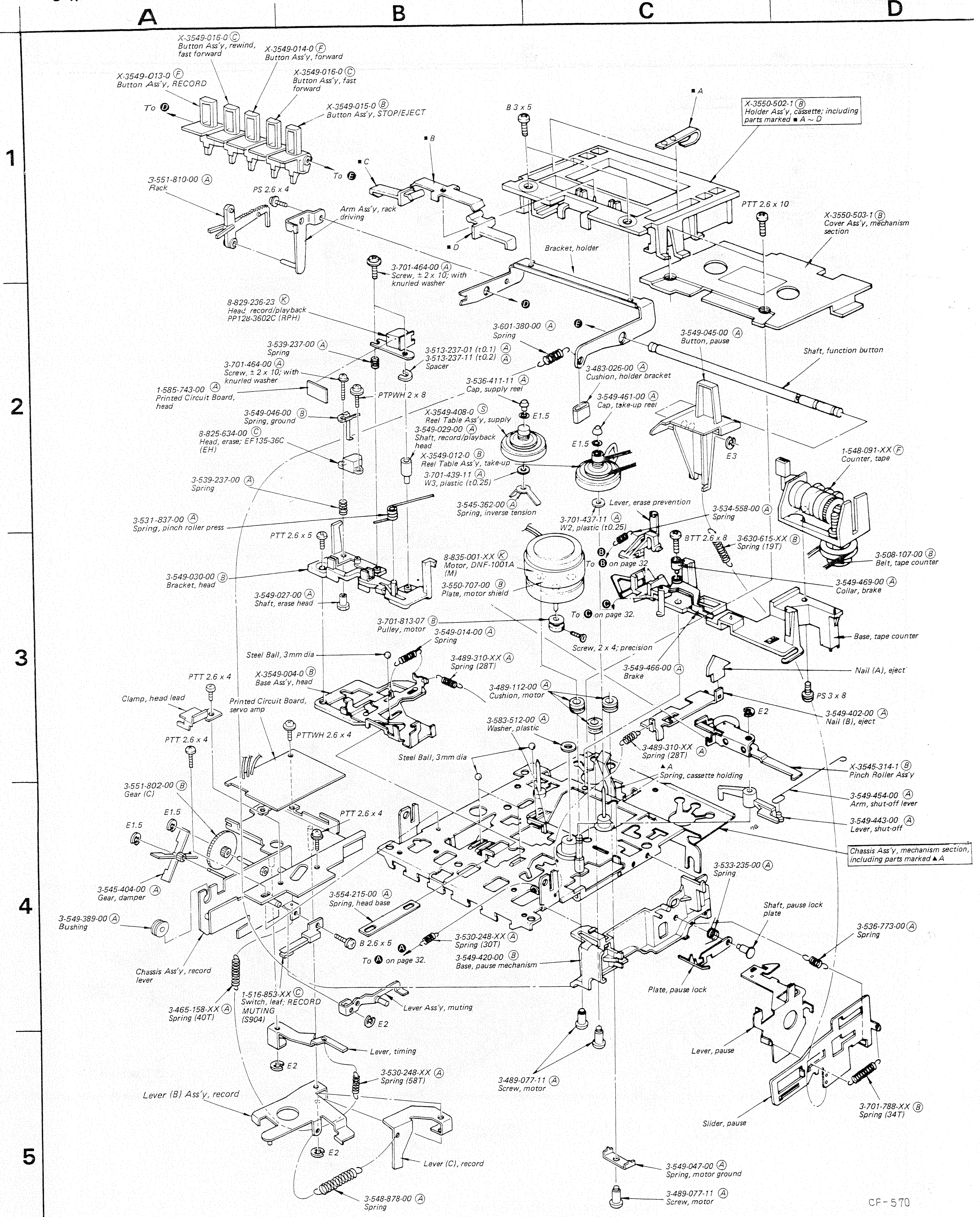
5-4.


A
B
C
D
1
2
3
4
5
X-3549-016-0 Ⓒ Button Ass'y, rewind, fast forward
X-3549-014-0 Ⓕ Button Ass'y, forward
X-3549-013-0 Ⓕ Button Ass'y, RECORD
X-3549-016-0 Ⓒ Button Ass'y, fast forward
X-3549-015-0 Ⓑ Button Ass'y, STOP/EJECT
To Ⓓ
To Ⓔ
■ B
■ C
■ D
■ A
3-551-810-00 Ⓐ Rack
PS 2.6 x 4
Arm Ass'y, rack driving
B 3 x 5
X-3550-502-1 Ⓑ Holder Ass'y, cassette; including parts marked ■ A ~ D
PTT 2.6 x 10
X-3550-503-1 Ⓑ Cover Ass'y, mechanism section
Bracket, holder
3-701-464-00 Ⓐ Screw, ± 2 x 10; with knurled washer
Ⓓ
8-829-236-23 Ⓚ Head, record/playback PP128-3602C (RPH)
3-601-380-00 Ⓐ Spring
Ⓔ
3-549-045-00 Ⓐ Button, pause
Shaft, function button
3-539-237-00 Ⓐ Spring
3-513-237-01 (t0.1) Ⓐ
3-513-237-11 (t0.2) Ⓐ
Spacer
3-483-026-00 Ⓐ Cushion, holder bracket
3-701-464-00 Ⓐ Screw, ± 2 x 10; with knurled washer
1-585-743-00 Ⓐ Printed Circuit Board, head
PTPWH 2 x 8
3-536-411-11 Ⓐ Cap, supply reel
3-549-461-00 Ⓐ Cap, take-up reel
3-549-046-00 Ⓑ Spring, ground
X-3549-408-0 Ⓢ Reel Table Ass'y, supply
E1.5
3-549-029-00 Ⓐ Shaft, record/playback head
8-825-634-00 Ⓒ Head, erase; EF135-36C (EH)
E1.5
E3
1-548-091-XX Ⓕ Counter, tape
X-3549-012-0 Ⓑ Reel Table Ass'y, take-up
3-701-439-11 Ⓐ W3, plastic (t0.25)
3-539-237-00 Ⓐ Spring
3-545-362-00 Ⓐ Spring, inverse tension
Lever, erase prevention
3-534-558-00 Ⓐ Spring
3-531-837-00 Ⓐ Spring, pinch roller press
3-701-437-11 Ⓐ W2, plastic (t0.25)
BTT 2.6 x 8
3-630-615-XX Ⓑ Spring (19T)
PTT 2.6 x 5
3-508-107-00 Ⓑ Belt, tape counter
8-835-001-XX Ⓚ Motor, DNF-1001A (M)
Ⓑ
To Ⓑ on page 32
3-549-030-00 Ⓑ Bracket, head
3-550-707-00 Ⓑ Plate, motor shield
3-549-469-00 Ⓐ Collar, brake
3-549-027-00 Ⓐ Shaft, erase head
Ⓒ
To Ⓒ on page 32.
3-701-813-07 Ⓑ Pulley, motor
3-549-014-00 Ⓐ Spring
Base, tape counter
Screw, 2 x 4; precision
Steel Ball, 3mm dia
3-489-310-XX Ⓐ Spring (28T)
3-549-466-00 Ⓐ Brake
Nail (A), eject
PTT 2.6 x 4
X-3549-004-0 Ⓑ Base Ass'y, head
PS 3 x 8
Clamp, head lead
Printed Circuit Board, servo amp
3-489-112-00 Ⓐ Cushion, motor
E2
3-549-402-00 Ⓐ Nail (B), eject
3-583-512-00 Ⓐ Washer, plastic
PTTWH 2.6 x 4
PTT 2.6 x 4
Steel Ball, 3mm dia
3-489-310-XX Ⓐ Spring (28T)
X-3545-314-1 Ⓑ Pinch Roller Ass'y
▲ A
Spring, cassette holding
3-551-802-00 Ⓑ Gear (C)
3-549-454-00 Ⓐ Arm, shut-off lever
E1.5
PTT 2.6 x 4
E1.5
3-549-443-00 Ⓐ Lever, shut-off
Chassis Ass'y, mechanism section, including parts marked ▲ A
3-533-235-00 Ⓐ Spring
3-545-404-00 Ⓐ Gear, damper
3-554-215-00 Ⓐ Spring, head base
Shaft, pause lock plate
3-549-389-00 Ⓐ Bushing
3-536-773-00 Ⓐ Spring
B 2.6 x 5
Ⓐ
3-530-248-XX Ⓐ Spring (30T)
To Ⓐ on page 32.
3-549-420-00 Ⓑ Base, pause mechanism
Chassis Ass'y, record lever
Plate, pause lock
1-516-853-XX Ⓒ Switch, leaf; RECORD MUTING (S904)
3-465-158-XX Ⓐ Spring (40T)
Lever Ass'y, muting
E2
Lever, timing
Lever, pause
E2
3-530-248-XX Ⓐ Spring (58T)
3-489-077-11 Ⓐ Screw, motor
Lever (B) Ass'y, record
3-701-788-XX Ⓑ Spring (34T)
Slider, pause
E2
Lever (C), record
3-549-047-00 Ⓐ Spring, motor ground
3-548-878-00 Ⓐ Spring
3-489-077-11 Ⓐ Screw, motor
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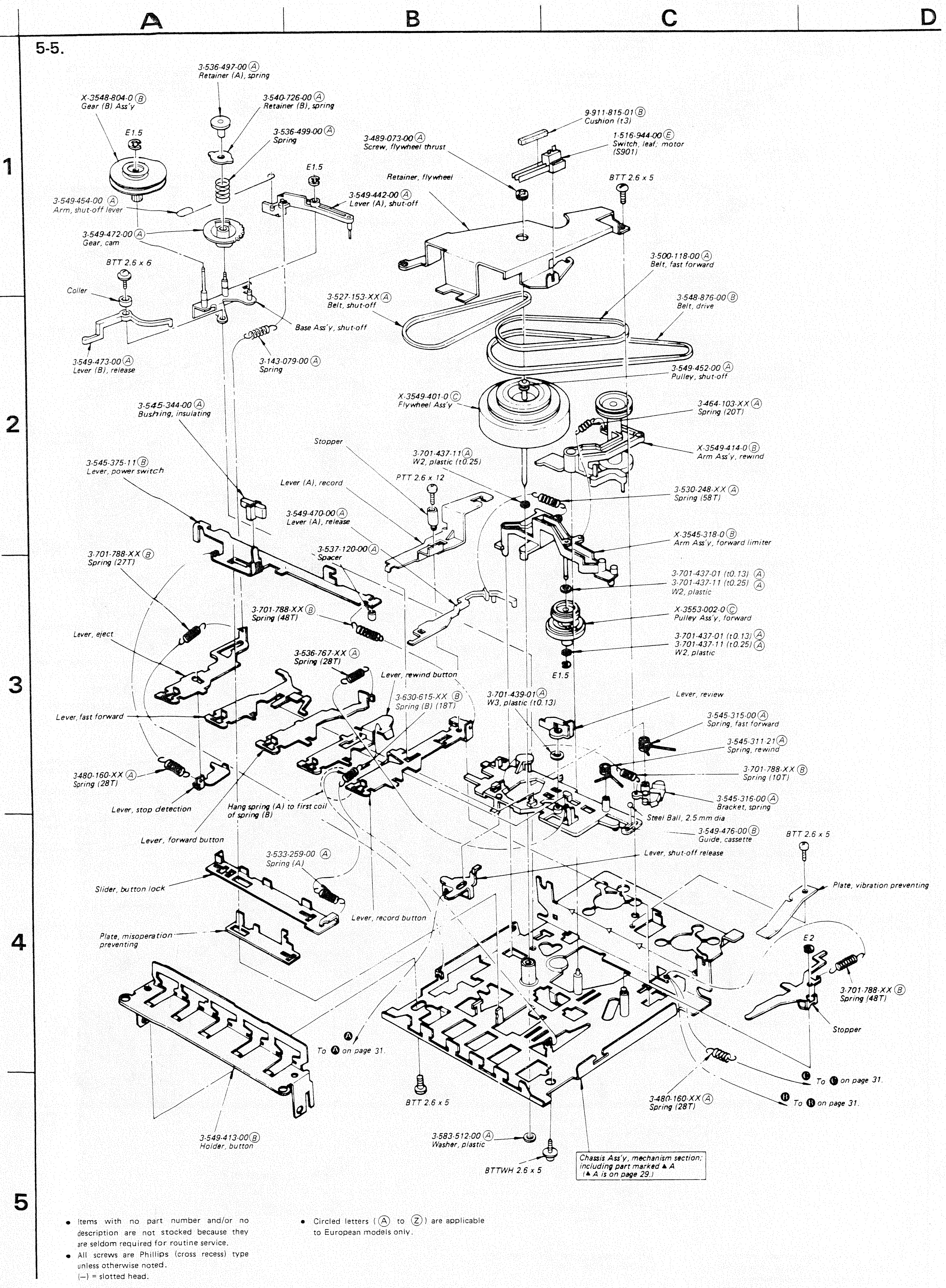
  (−) = slotted head.

- Circled letters (Ⓐ to Ⓩ) are applicable to European models only.

5-5.


A
B
C
D
1
2
3
4
5
3-536-497-00 Ⓐ
Retainer (A), spring
X-3548-804-0 Ⓑ
Gear (B) Ass'y
3-540-726-00 Ⓐ
Retainer (B), spring
E1.5
3-536-499-00 Ⓐ
Spring
E1.5
3-549-454-00 Ⓐ
Arm, shut-off lever
3-549-442-00 Ⓐ
Lever (A), shut-off
3-549-472-00 Ⓐ
Gear, cam
BTT 2.6 x 6
Coller
Base Ass'y, shut-off
3-549-473-00 Ⓐ
Lever (B), release
3-143-079-00 Ⓐ
Spring
3-489-073-00 Ⓐ
Screw, flywheel thrust
Retainer, flywheel
9-911-815-01 Ⓑ
Cushion (t3)
1-516-944-00 Ⓔ
Switch, leaf; motor
(S901)
BTT 2.6 x 5
3-500-118-00 Ⓐ
Belt, fast forward
3-527-153-XX Ⓐ
Belt, shut-off
3-548-876-00 Ⓑ
Belt, drive
3-549-452-00 Ⓐ
Pulley, shut-off
X-3549-401-0 Ⓒ
Flywheel Ass'y
3-464-103-XX Ⓐ
Spring (20T)
3-545-344-00 Ⓐ
Bushing, insulating
Stopper
3-701-437-11 Ⓐ
W2, plastic (t0.25)
X-3549-414-0 Ⓑ
Arm Ass'y, rewind
3-545-375-11 Ⓑ
Lever, power switch
PTT 2.6 x 12
Lever (A), record
3-530-248-XX Ⓐ
Spring (58T)
3-549-470-00 Ⓐ
Lever (A), release
X-3545-318-0 Ⓑ
Arm Ass'y, forward limiter
3-537-120-00 Ⓐ
Spacer
3-701-788-XX Ⓑ
Spring (27T)
3-701-437-01 (t0.13) Ⓐ
3-701-437-11 (t0.25) Ⓐ
W2, plastic
3-701-788-XX Ⓑ
Spring (48T)
X-3553-002-0 Ⓒ
Pulley Ass'y, forward
Lever, eject
3-701-437-01 (t0.13) Ⓐ
3-701-437-11 (t0.25) Ⓐ
W2, plastic
3-536-767-XX Ⓐ
Spring (28T)
E1.5
Lever, rewind button
3-630-615-XX Ⓑ
Spring (B) (18T)
3-701-439-01 Ⓐ
W3, plastic (t0.13)
Lever, review
Lever, fast forward
3-545-315-00 Ⓐ
Spring, fast forward
3-545-311-21 Ⓐ
Spring, rewind
3-701-788-XX Ⓑ
Spring (10T)
3480-160-XX Ⓐ
Spring (28T)
3-545-316-00 Ⓐ
Bracket, spring
Lever, stop detection
Hang spring (A) to first coil
of spring (B)
Steel Ball, 2.5 mm dia
3-549-476-00 Ⓑ
Guide, cassette
Lever, forward button
BTT 2.6 x 5
3-533-259-00 Ⓐ
Spring (A)
Lever, shut-off release
Slider, button lock
Plate, vibration preventing
Lever, record button
Plate, misoperation
preventing
E2
3-701-788-XX Ⓑ
Spring (48T)
Stopper
Ⓐ
To Ⓐ on page 31.
To Ⓒ on page 31.
To Ⓑ on page 31.
BTT 2.6 x 5
3-480-160-XX Ⓐ
Spring (28T)
3-549-413-00 Ⓑ
Holder, button
3-583-512-00 Ⓐ
Washer, plastic
BTTWH 2.6 x 5
Chassis Ass'y, mechanism section;
including part marked ▲A
(▲A is on page 29.)

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
  (–) = slotted head.

- Circled letters (Ⓐ to Ⓩ) are applicable to European models only.

SECTION 6
ELECTRICAL PARTS LIST

- Circled letters (Ⓐ to Ⓩ) are applicable to European models only.

PRINTED CIRCUIT BOARDS

Ref. No.	*Part No.*	*Description*
	1-585-743-00	Ⓐ Head
	1-585-756-00	Ⓐ LED
	1-586-277-00	Ⓑ Voltage Selector (AEP Model)

SEMICONDUCTORS

Transistors

Ref. No.	*Part No.*	*Description*
Q1		Ⓑ 2SC930
⇒Q2, 3		Ⓒ 2SC1129
Q4～8		Ⓑ 2SC710
Q9		Ⓑ 2SC930
⇒Q101, 201		Ⓑ 2SC632A
⇒Q102, 202		Ⓑ 2SC1364 (blue)
⇒Q103, 203		Ⓑ 2SC634A
⇒Q104, 204		Ⓑ 2SC632A
⇒Q105, 205		Ⓑ 2SC634A
⇒Q106, 206		
⇒Q301		Ⓑ 2SC634A
Q302		Ⓒ 2SC1173
⇒Q303		Ⓑ 2SC634A
Q601		Ⓒ 2SC1761
⇒Q602		Ⓑ 2SB324
⇒Q603		Ⓑ 2SC634A

Diodes

Ref. No.	*Part No.*	*Description*
D1		Ⓑ 2SC634A
D2, 3		Ⓑ 1T261
D4, 5		Ⓑ 1T22A
⇒D101, 201		Ⓑ 1S1555
⇒D102, 202		Ⓑ 1T22A
⇒D103, 203		
D301, 302		Ⓑ 10E2
⇒D303		Ⓑ EQB01-08
⇒D304		Ⓑ 1T22A
⇒D601		Ⓑ 10E2
⇒D602		Ⓑ 1S1555
D901, 902		Ⓒ SLP24B

ICs

Ref. No.	*Part No.*	*Description*
IC1		Ⓕ LA3301
IC101, 201		Ⓗ HA1306W
TH601	1-800-071-XX	Ⓐ Thermistor S-400

COILS

Ref. No.	*Part No.*	*Description*
L2	1-425-632-00	Ⓑ FM RF
L3	1-459-157-00	Ⓑ FM Osc
L4	1-407-175-XX	Ⓐ Microinductor, LF-1; 330 μH
L5	1-407-178-XX	Ⓐ Microinductor, LF-4; 1 μH
L101, 201	1-407-212-XX	Ⓑ Microinductor, 33 μH
L601, 602	1-407-484-00	Ⓑ Microinductor, 3,3 μH

TRANSEORMERS

Ref. No.	*Part No.*	*Description*
T1	1-403-872-00	Ⓑ FM IFT
T2	1-403-952-00	Ⓑ FM Discriminator, primary
T3	1-403-953-00	Ⓑ FM Discriminator, secondary
T4	1-404-041-00	Ⓑ AM IFT, detect stage
T5	1-401-538-00	Ⓑ SW ANT
T6	1-405-740-00	Ⓑ SW Osc
T7	1-405-520-00	Ⓑ MW Osc
T8	1-405-772-00	Ⓑ LW Osc
T9	1-425-956-00	Ⓒ MPX
T11	1-403-144-00	Ⓒ AM IFT, 455 kHz (AEP model)
T11	1-403-827-00	Ⓒ AM IFT, 468 kHz (UK model)
T101, 201	1-427-420-00	Ⓒ Output
T901	1-442-744-00	Ⓚ Power (UK model)
T901	1-442-917-00	Ⓚ Power (AEP model)
CF1, 2	1-527-184-XX	Ⓑ Filter, ceramic; 10,7 MHz

⇒ : Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

Note: The components identified by shading are critical for safety. Replace only with part number specified.

- Circled letters (Ⓐ to Ⓩ) are applicable to European models only.

CAPACITORS

All capacitors are in μF and ceramic unless otherwise noted.
50WV or less are not indicated except for electrolytics.
pF = $\mu\mu$F, elect = electrolytic

Ref. No.	*Part No.*		*Description*		
C1,2	1-101-923-11	Ⓐ	0,01		
C3	1-102-959-11	Ⓐ	22 p		
C4	1-101-923-11	Ⓐ	0,01		
C5	1-102-935-11	Ⓐ	2 p		
C6 – 8	1-101-923-11	Ⓐ	0,01		
C9	1-102-504-11	Ⓐ	4 p		
C10	1-102-865-11	Ⓐ	8 p		
C11	1-102-964-11	Ⓐ	36 p		
C12	1-102-851-11	Ⓐ	15 p		
C13	1-102-503-11	Ⓐ	3 p		
C14	1-121-726-11	Ⓐ	0,47	50 V	elect
C15 – 18	1-101-923-11	Ⓐ	0,01		
C19	1-102-942-11	Ⓐ	5 p		
C20	1-101-924-11	Ⓐ	0,022		
C21	1-121-651-11	Ⓐ	10	16 V	elect
C22, 23	1-102-978-11	Ⓐ	220 p		
C24	1-102-973-11	Ⓐ	100 p		
C25	1-101-923-11	Ⓐ	0,01		
C26	1-103-736-11	Ⓐ	0,003		pdystyrol
C27	1-101-923-11	Ⓐ	0,01		
C28	1-161-013-11	Ⓐ	0,01		boundary layer
C29	1-101-924-11	Ⓐ	0,022		
C30	1-101-923-11	Ⓐ	0,01		
C31, 32	1-101-924-11	Ⓐ	0,022		
C33	1-121-479-11	Ⓐ	22	16 V	elect
C34	1-102-945-11	Ⓐ	8 p		
C35	1-102-944-11	Ⓐ	7 p		
C36	1-103-738-11	Ⓐ	0,0036		pdystyrol
C37	1-107-231-11	Ⓐ	360 p		silvered mica
C38	1-102-944-11	Ⓐ	7 p		
C39	1-103-707-11	Ⓐ	180 p		pdystyrol
C40	1-102-945-11	Ⓐ	8 p		
C41	1-102-950-11	Ⓐ	13 p		
C42	1-102-971-11	Ⓐ	82 p		
C43	1-121-409-11	Ⓐ	47	16 V	elect
C44	1-121-415-11	Ⓑ	100	16 V	elect
C45	1-161-013-11	Ⓐ	0,01		(boundary layer)
C46	1-101-924-11	Ⓐ	0,022		
C47	1-161-013-11	Ⓐ	0,01		(boundary layer)
C48	1-121-409-11	Ⓐ	47	10 V	elect
C49	1-102-951-11	Ⓐ	15 p		
C50	1-161-003-11	Ⓐ	0,0015		
C51	1-121-391-11	Ⓐ	1		
C52	1-121-651-11	Ⓐ	10	16 V	elect
C53	1-103-749-11	Ⓑ	0,01		pdystyrol
C54	1-103-734-11	Ⓐ	0,0024		pdystyrol
C55, 56	1-121-395-11	Ⓐ	4,7	25 V	elect
C57	1-161-005-11	Ⓐ	0,0022		(boundary layer)
C58	1-161-003-11	Ⓐ	0,0015		(boundary layer)
C59	1-161-005-11	Ⓐ	0,0022		(boundary layer)
C60	1-161-008-11	Ⓐ	0,0039		(boundary layer)
C61	1-161-005-11	Ⓐ	0,0022		(boundary layer)
C62	1-161-003-11	Ⓐ	0,0015		(bondary layer)
C63	1-161-005-11	Ⓐ	0,0022		(boundary layer)
C64	1-161-008-11	Ⓐ	0,0039		(boundary layer)
C65	1-101-923-11	Ⓐ	0,01		
C66	1-102-935-11	Ⓐ	2 p		
C101, 201	1-127-019-11	Ⓑ	0,1	16 V	solid aluminium
C102, 202	1-121-395-11	Ⓐ	4,7	25 V	elect
C103, 203	1-107-073-11	Ⓐ	33 p		silvered mica
C104, 204	1-101-918-11	Ⓐ	0,001		
C105, 205	1-102-110-11	Ⓐ	220 p		
C106, 206	1-121-391-11	Ⓐ	1	50 V	elect
C107, 207	1-121-414-11	Ⓐ	100	10 V	elect
C108, 208	1-121-726-11	Ⓐ	0,47	50 V	elect
C109, 209	1-102-074-11	Ⓐ	0,001		
C110, 210	1-121-726-11	Ⓐ	0,47	50 V	elect
C111, 211	1-121-651-11	Ⓐ	10	16 V	elect
C112, 212	1-121-415-11	Ⓑ	100	16 V	elect
C113, 213	1-101-918-11	Ⓐ	0,001		
C114, 215	1-121-651-11	Ⓐ	10	16 V	elect
C115, 215	1-107-085-11	Ⓐ	100 p		silvered mica

- Circled letters (Ⓐ to Ⓩ) are applicable to European models only.

Ref. No.	*Part No.*	*Description*		
C116, 216	1-121-414-11	Ⓐ 100	6,3 V	elect
C117, 217	1-121-651-11	Ⓐ 10	16 V	elect
C118, 218	1-121-409-11	Ⓐ 47	10 V	elect
C119, 219	1-161-001-11	Ⓐ 0,001		(boundary layer)
C120, 220	1-161-017-11	Ⓐ 0,022		(boundary layer)
C121, 221 C122, 222	1-107-073-11	Ⓐ 33 p		silvered mica
C123, 223	1-161-001-11	Ⓐ 0,001		(boundary layer)
C124, 224	1-161-002-11	Ⓐ 0,0012		(boundary layer)
C126, 226	1-107-130-11	Ⓐ 91 p		silvered mica
C127, 227	1-107-061-11	Ⓐ 10 p		silvered mica (AEP model)
C127, 227	1-107-104-11	Ⓐ 7 p		silvered mica (UK model)
C128, 228	1-107-065-11	Ⓐ 15 p		silvered mica (AEP model)
C128, 228	1-107-108-11	Ⓐ 11 p		silvered mica (UK model)
C129, 229	1-102-074-11	Ⓐ 0,001	50 V	
C130, 230	1-121-391-11	Ⓐ 1	50 V	elect
C131, 231	1-121-392-11	Ⓐ 3,3	25 V	elect
C132, 232	1-121-651-11	Ⓐ 10	16 V	elect
C133, 233	1-161-005-11	Ⓐ 0,0022		(boundary layer)
C134, 234	1-121-726-11	Ⓐ 0,47	50 V	elect
C135, 235	1-121-414-11	Ⓐ 100	6,3V	elect
C136, 236	1-121-414-11	Ⓐ 100	6,3 V	elect
C137, 237	1-102-110-11	Ⓐ 220 p		
C138, 238	1-161-001-11	Ⓐ 0,001		(boundary layer)
C139, 239	1-121-409-11	Ⓐ 47	16 V	elect
C140, 240	1-108-249-12	Ⓐ 0,068		mylar
C141, 241	1-108-254-12	Ⓑ 0,22		mylar
C142, 242	1-121-943-11	Ⓑ 1000	10 V	elect
C143, 243	1-107-253-11	Ⓑ (15 + 18 + 22 + 27) p	50V	silvered mica
C144, 244	1-102-110-11	Ⓐ 220 p		
C145, 245	1-102-110-11	Ⓐ 220 p		
C146, 246	1-102-110-11	Ⓐ 220 p		
C301 – 303	1-101-918-11	Ⓐ 0,001		
C304, 305	1-123-070-11	Ⓒ 2200	16 V	elect

Ref. No.	*Part No.*	*Description*		
C306	1-121-415-11	Ⓑ 100	16 V	elect
C308	1-121-392-11	Ⓐ 3,3	25 V	elect
C309	1-121-940-11	Ⓑ 470	16 V	elect
C310	1-121-415-11	Ⓑ 100	16 V	elect
C311	1-123-072-11	Ⓑ 220	10 V	elect
C312	1-107-188-11	Ⓐ 620 p	500 V	silvered mica (AEP model)
	1-107-200-11	Ⓐ 430 p	500 V	silvered mica (UK model)
C313	1-107-200-11	Ⓐ 430 p		silvered mica (UK model)
	1-107-213-11	Ⓑ 680 p		silvered mica (AEP model)
C314	1-129-702-11	Ⓐ 330 p		mica
C315	1-107-258-11	Ⓑ 750 p	500 V	silvered mica
C316, 317	1-121-479-11	Ⓐ 22	16 V	elect
C318	1-121-402-11	Ⓐ 33	10 V	elect
C319	1-121-391-11	Ⓐ 1	50 V	elect
C401, 402	1-161-006-11	Ⓐ 0,0027		(boundary layer)
C403, 404	1-161-015-11	Ⓐ 0,015		(boundary layer)
C405, 406	1-161-018-11	Ⓐ 0,027		(boundary layer)
C407, 408	1-108-251-12	Ⓑ 0.1		mylar
C415	1-101-004-11	Ⓐ 0,01		
C601	1-121-414-11	Ⓐ 100	6,3 V	elect
C602	1-123-077-11	Ⓑ 470	6,3 V	elect
C603	1-121-409-11	Ⓐ 47	16 V	elect
C801, 802	1-119-426-11	Ⓑ 3,3	50 V	elect
CT1 – 3	1-151-239-00	Ⓖ		Trimmer
CT5 – 9	1-141-171-XX	Ⓑ		Trimmer
CV1 – 4	1-151-239-00	Ⓖ		Tuning

RESISTORS

All resistors are in ohms. Common ¼W carbon resistors are omitted. Check schematic diagram for values.

R127	1-224-642-XX	Ⓑ 1 k	adjustable
R138	1-224-643-XX	Ⓑ 2,2 k	adjustable
R213	1-224-648-XX	Ⓑ 100 k	adjustable

Note: The components identified by shading are critical for safety. Replace only with part number specified.

- Circled letters (Ⓐ to Ⓩ) are applicable to European models only.

Ref. No.	Part No.	Description
R227	1-224-642-XX	Ⓑ 1 k adjustable
R302	1-213-084-11	Ⓐ 100 1 W fusible
R315	1-224-646-XX	Ⓑ 22 k adjustable
R401, 402	1-224-838-00	Ⓓ 100 k, variable; TREBLE
R405, 406	1-224-836-00	Ⓓ 100 k, variable; BASS
R411, 412	1-224-835-00	Ⓓ 20 k, variable; VOLUME
R429	1-224-804-00	Ⓒ 100 k, variable; BALANCE
R608	1-224-642-XX	Ⓑ 1 k adjustable
RV1	1-224-642-XX	Ⓑ 1 k adjustable

SWITCHES

Ref. No.	Part No.	Description
S1	1-514-316-00	Ⓓ Slide, BAND SELECT
S101	1-552-113-00	Ⓓ Slide, record/playback
S102	1-552-112-00	Ⓔ Slide, FUNCTION
S401	1-516-962-00	Ⓒ Lever, slide; TAPE SELECT
S402	1-516-963-00	Ⓒ Lever, slide; MODE
S901	1-516-944-00	Ⓔ Leaf, MOTOR
S902		Included in CNJ901, AC/DC
S903	1-516-853-XX	Ⓒ Leaf, MUTING
S904	1-516-853-XX	Ⓒ Leaf, RECORD MUTING
S905	1-552-111-00	Ⓓ Push botton, AFC/ISS, LIGHT
S906	1-552-026-00	Ⓔ Voltage Selector (AEP model)
S907	1-552-221-00	Ⓔ MAINS (UK model)

JACKS

Ref. No.	Part No.	Description
J101, 201	1-507-450-00	Ⓑ MIC
J301	1-509-549-00	Ⓑ Record/playback
J801	1-507-512-00	Ⓒ PHONES
J901	1-507-357-00	Ⓑ REMOTE
CNJ901	1-509-510-00	Ⓒ Connector, 2-p AC INPUT
CNJ902	1-507-261-XX	Ⓑ DC IN 12 V

FUSES

Ref. No.	Part No.	Description
F301	1-532-387-00	Ⓑ Fuse, T0,2 A (AEP model)
	1-533-502-00	Ⓑ Fuse, T0.2A (UK model)
F302, 303	1-532-502-00	Ⓑ Fuse, T1,25 A

MISCELLANEOUS

Ref. No.	Part No.	Description
ANT-1	1-501-168-00	Ⓕ FM/SW telescopic antenna
ANT-2	1-401-539-00	Ⓒ Ferrite-rod antenna
CP301	1-464-025-00	Ⓖ Bias Osc Unit
CP901	1-231-057-00	Ⓑ Encapsulated Component (UK model)
EH	8-825-634-00	Ⓒ Head, erase; EF135-36C
M	8-835-001-XX	Ⓚ Motor DNF-1001 A
ME901, 902	1-520-297-00	Ⓗ Meter, level
ME903	1-520-296-00	Ⓗ Meter, tuning
MIC	8-814-196-50	Ⓕ Microphone, electret condenser; C-1004S
PL901	1-518-282-XX	Ⓑ Lamp, pilot
RPH	8-829-236-23	Ⓚ Head, record/playback; PP128-3602C
SP801, 802	1-502-643-00	Ⓖ Speaker, tweeter; 4 Ω
SP803, 804	1-502-642-00	Ⓗ Speaker, woofer; 4 Ω
	1-231-286-00	Ⓑ Band-pass Filter
	1-533-102-XX	Ⓑ Holder, fuse (AEP model)
	1-533-131-00	Ⓐ Holder, fuse

ACCESSORES & PACKING MATERIALS

Part No.	Description
X-3701-105-0	Ⓐ Tips Ass'y, cleaning
1-534-840-XX	Ⓔ Cord, power; DK-38 (AEP model)
1-551-218-00	Ⓔ Cord, power (UK model)
3-551-880-00	Ⓒ Cushion (right)
3-551-881-00	Ⓒ Cushion (left)
3-551-895-00	Ⓑ Bag, protection
3-551-917-00	Ⓔ Carton
3-701-632-00	Ⓐ Bag, plastic
3-701-684-11	Ⓐ Card, power supply voltage
3-703-133-00	Ⓐ Tag, caution; antenna
3-770-350-11	Ⓔ Manual, instruction (AEP model)
3-770-350-41	Ⓒ Manual, instruction (UK model)
3-793-828-11	Ⓐ Card, cassette caution
8-893-511-00	Ⓕ Tape, demonstration CD-806

Note: The components identified by shading are critical for safety. Replace only with part number specified.

Sony Corporation

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SIEMENS
RADIO

QUALITÄTSSUPER 54
832 W

PHONOSUPER 54
833 W

ABGLEICH-VORSCHRIFT
UND
STROMLAUF

ALLGEMEINES

Alle Abgleichpunkte sind nach Abnahme der Rückwand und Bodenplatte zugänglich. Lautstärkeregler voll aufdrehen, Höhen- und Tiefenregister voll aufdrehen. Drehko-Bündigkeit und Zeigerstellung prüfen. Zum Abgleich Zeiger jeweils auf Abgleichmarke der Skala stellen. L-Abgleich stets beim ersten Maximum. Mit L-Abgleich beginnen, L- und C-Abgleich nach Bedarf mehrfach wiederholen, stets mit C-Abgleich enden.

A) AM-Abgleich

I. ZF (468 kHz)

Taste „M" einschalten, Drehko 1/3 herausdrehen, Meßsender (468 kHz) über 5 nF an Punkt (U) (Gitter 1 Hexode ECH 81) und Masse anschließen. Ausgangsspannungsmesser an Buchsen für 2. Lautsprecher.

Beim Nachgleichen der AM-ZF-Filter ist die Stellung des gewindelosen Ferritkernes durch eine schraubende Bewegung mit Hilfe einer spitzen Pinzette zu verändern. Ersatz-Abgleichhalme liegen dem Gerät bei.

Bei Geräten mit 4-mm-Kernen ist vorher die Verschmelzung des Innen- und Außenhalmes mittels eines Spiral-Bohrers zu beseitigen. Nach Beendigung des Abgleichs sind die Halme durch Lack zu sichern oder durch einen erhitzten Draht miteinander zu verschweißen.

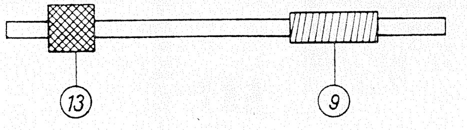
Bei Geräten mit 2-mm-Halmen entfallen diese Maßnahmen.

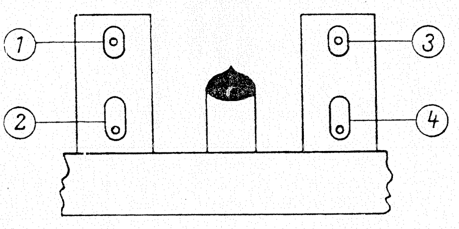
ZF-Filter 2	Diodenseite (1) Anodenseite (2)
ZF-Filter 1	Gitterseite (3) Anodenseite (4)

Saugkreis

Meßsender (468 kHz) über Ersatzantenne (400 Ω in Reihe mit 200 pF) an Antennen- und Erdbuchse anschließen.

(5) Saugkreisspule auf Minimum abgleichen.





II. HF-Abgleich

Meßsender wie bei Saugkreis-Abgleich anschließen.

		L-Seite		C-Seite	
Kurz	Oszi-Kreis Vorkreis	(6) (7)	6,67 MHz 6,67 MHz	— —	— —
Mittel	Oszi-Kreis Vorkreis*)	(8) (9)	600 kHz 600 kHz	(10) (11)	1500 kHz 1500 kHz
Lang	Oszi-Kreis Vorkreis*)	(12) (13)	191 kHz 191 kHz	— —	— —

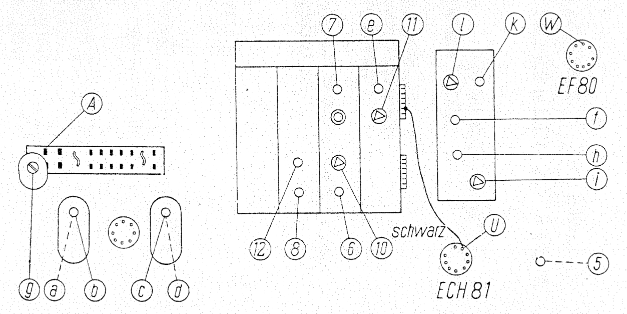
*) Zum Nachgleich des Vorkreises, der jedoch nur in den seltensten Fällen erforderlich ist, Spule auf der Ferritantenne mit wenig Azeton oder Trichloräthylen loslösen. Abgleich erfolgt dann durch Verschieben der Spule auf dem Ferritstab. Anschließend Spule mit Lack oder „Uhu" festlegen.

B) FM-Abgleich mit einfachen Mitteln

I. ZF (10,7 MHz)

Taste „U" einschalten, Ausgangsspannungsmesser an Buchse für zweiten Lautsprecher, Meßsender (Ri = 75 Ω) 10,7 MHz amplitudenmoduliert über 5 nF und 1 kΩ in Reihe an Punkt „W" (Schirmgitter EF 80) und an Erdpunkt der EF 80 anschließen. Die nicht abgeschirmten Enden des Senderkabels müssen so kurz wie möglich sein.

Drehko-Stellung beliebig. Kern (b) zu Beginn um 3 bis 5 Gewindegänge herausdrehen. Potentiometer (g) nicht verstellen! Alle Kerne außer Kern „b" auf Maximum am Ausgangsspannungsmesser einstellen.



Gestrichelt gezeichnete Positionen von Chassisoberseite aus abgleichen.

Diskr.-Filter	Anodenseite	(a)
ZF-Filter 2	Gitterseite Anodenseite	(c) (d)
ZF-Filter 1	Gitterseite Anodenseite	(e) (f)

Meßsender abklemmen, Gerät auf einen schwächeren FM-Rundfunksender einstellen. Optimale Einstellung durch Summenspannungsmessung zwischen Punkt „A" und Masse feststellen (Maximum). Summenspannung soll etwa 5 V betragen.

Diskr.-Filter	Diodenseite	(b)	auf Ton (NF)-Maximum nach Gehör einstellen*)
Potentiometer		(g)	Rauschminimum

*) In den meisten Fällen sind 3 Maxima feststellbar, von denen das Mittlere, zwischen zwei Minima liegende Maximum das Richtige ist

Abgleich (b) und (g) wechselseitig wiederholen, bis optimale Einstellung erreicht.

II. HF-Abgleich

1. Oszillator

Gehäuse- oder Außendipol anschließen. Skalenzeiger auf Mitte Raute des am Empfangsort gut zu hörenden UKW-Senders einstellen (möglichst bei etwa 87,75 MHz bzw. bei etwa 99 MHz). Der Sendekanal des eingestellten Senders ist aus der dem Gerät beiliegenden UKW-Sender-Tabelle zu ersehen

(h) Abgleich auf Maximum am Magischen Auge (88,75 MHz).

(i) Abgleich auf Maximum am Magischen Auge (99 MHz).

2. Vorkreis

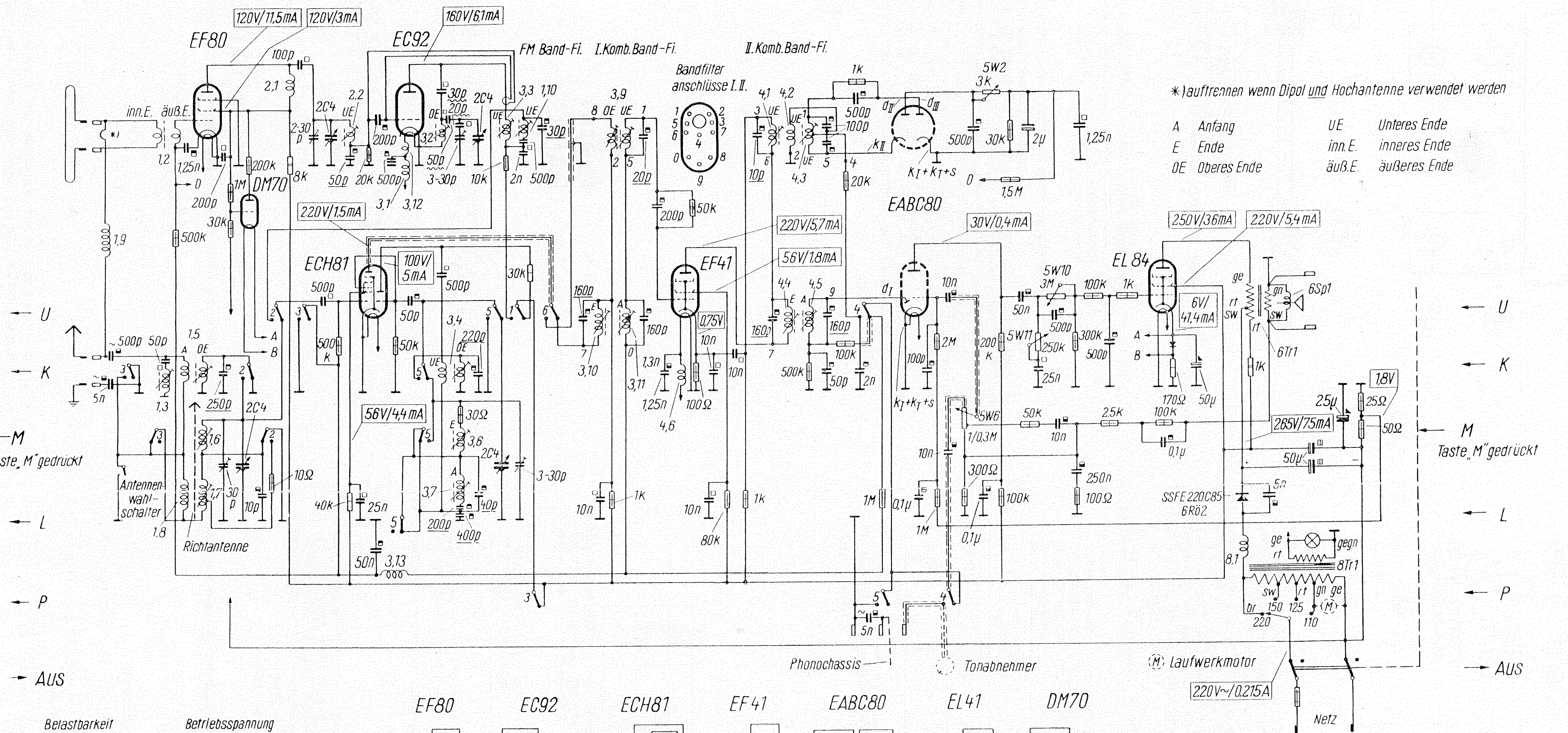
Dipolzuführungen herausziehen, Zeiger auf Abgleichmarke 87,75 MHz stellen.
(k) auf Rauschmaximum abgleichen.
Zeiger auf Abgleichmarke 99 MHz stellen.
(l) auf Rauschmaximum abgleichen.

C) FM-Abgleich ohne Meßsender und Instrumente

In folgenden Fällen ist ein Nachgleichen des gesamten UKW-Teiles rein gehörmäßig auf Rauschmaximum möglich.

1. Wenn auf dem UKW-Bereich ein Rauschen noch hörbar ist und nur eine geringere Unempfindlichkeit beseitigt werden soll.
2. Wenn z. B. durch Auswechseln von Spulen (aus mechanischen Gründen) bekannt ist, welcher UKW-Kreis nachgeglichen werden muß.

SIEMENS & HALSKE AKTIENGESELLSCHAFT
WERNERWERK FÜR RADIOTECHNIK


EF80
120V/11,5mA
120V/3mA
EC92
160V/6,1mA
FM Band-Fi.
I. Komb. Band-Fi.
II. Komb. Band-Fi.
Bandfilter anschlüsse I. II.
DM70
ECH81
220V/1,5mA
100V/5mA
56V/4,4mA
EF41
220V/5,7mA
56V/1,8mA
0,75V
EABC80
30V/0,4mA
EL 84
250V/36mA
220V/5,4mA
6V/41,4mA
265V/75mA
1,8V
5W2
5W10
5W11
5W6
6Sp1
6Tr1
8Tr1
SSFE 220C85 6Rö2
inn.E.
äuß.E.
Antennen-wahl-schalter
Richtantenne
Phonochassis
Tonabnehmer
Laufwerkmotor
220V~/0,215A
Netz
U
K
M
Taste „M“ gedrückt
L
P
Aus

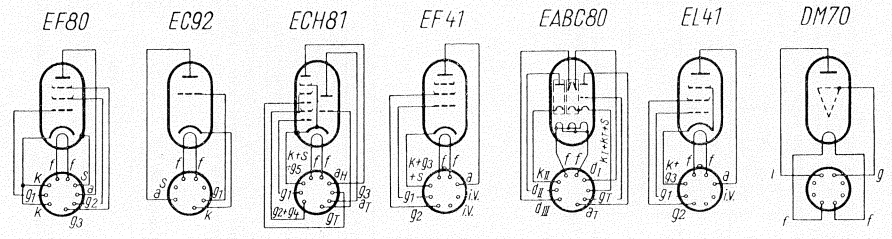
*) auftrennen wenn Dipol und Hochantenne verwendet werden

A	Anfang	UE	Unteres Ende
E	Ende	inn.E.	inneres Ende
OE	Oberes Ende	äuß.E.	äußeres Ende

Belastbarkeit der Widerstände		Betriebsspannung der Kondensatoren	
▭	0,1 W	◣	12/15 V
▭	0,25 W	▤	125 V
▭	0,5 W	■	250 V
▭	1 W	◫	350/385 V
▭	2 W	□	500 V

Gezeichnete Tastenstellung: „M“ gedrückt

Änderungen vorbehalten


EF80
EC92
ECH81
EF 41
EABC80
EL41
DM70

Röhrensockelschaltungen

- - - - nur bei Phonosuper

——— unterstrichene Kapazitätswerte: Keramische oder ähnliche Kondensatoren mit Toleranz ≦ 2,5%

∿∿∿ unterstrichene Kapazitätswerte Keramische Kondensatoren mit besonderen Temperaturwerten für Stabilisierung

Spannungen gemessen mit: Jnstrument Multizet 1000Ω/V
Ströme gemessen mit: Multizet 1000Ω/V Gemessen bei Mittelbereich

STROMLAUF: QUALITÄTSSUPER 54, 832 W
PHONOSUPER 54, 833 W